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NUMBER **I**

**MATERNAL  
and INFANT  
MORTALITY  
in 1944**

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Both the infant and the maternal death rates were lower in 1944 than in 1943; the maternal death rate had decreased 7 percent, the infant 1 percent. There was no appreciable change in the proportion of births attended by physicians (93 percent in both years), but there was a noticeable increase in the proportion occurring in hospitals (72 percent in 1943 and 76 percent in 1944).

Although the total death rate for children under 1 year of age has decreased greatly over the years, the rates for children less than 1 day old and children less than 1 month old have decreased very little. As a result, the proportion of neonatal deaths to all infant deaths has steadily increased and in 1944 amounted to 62 percent. The further reduction of infant mortality is therefore largely a matter of reducing neonatal deaths.

In 1944 the nonwhite maternal death rate was 170 percent, the infant death rate 60 percent, higher than the white. The largest single factor in the difference between white and nonwhite infant mortality was pneumonia and influenza, which takes a heavy toll of nonwhite infants. It is also significant that infant deaths attributed to "ill defined and unknown causes" were eight times commoner among nonwhites than whites—which suggests inferior medical, or diagnostic services.

Infant mortality rates vary among the different geographic areas. The variation is greater for nonwhites than whites. In 1944 the best white rates were found in the West North Central, Pacific, and Middle Atlantic divisions; the best nonwhite, in the Pacific, East South Central, and East North Central. The discrepancy between white and nonwhite rates was smallest in the Southern States and greatest in the Mountain and West North Central.

# MATERNAL AND INFANT MORTALITY IN 1944

## an inquiry into differential mortality

by *GEORGE WOLFF*

IN VIEW of the low rates for maternal and infant mortality already arrived at in the last years, it is gratifying to notice that the downward trend has continued in 1944.\* In 1944 there were 111,127 infant deaths recorded for the total United States, as compared with 118,484 in 1943 and 113,492 in 1942. Related to the live births during the same calendar year (the conventional computation of infant mortality in international vital statistics), these infant deaths correspond to rates of 39.8, 40.4, and 40.4 per 1,000 live births for 1944, 1943, and 1942 respectively.

It will be noticed that in 1943, the absolute number of infant deaths was higher than in the preceding year while the death rates were the same (40.4). This is due to the effect of a fast changing number of births in the last years, especially to the new increase in 1943, which was the peak year in the wartime rise of births. The number of registered births was 2,794,800 in 1944, 2,934,860 in 1943, and 2,808,996 in 1942, the corresponding birth rates, based on the estimated midyear population including the armed forces overseas, were 20.2, 21.5, and 20.9 per 1,000 population.

Since some of the infants dying in a certain calendar year were born in the preceding year, especially the last months of that year, a rapid change in the number of births from one year to another will make the infant mortality rate as usually computed somewhat inaccurate. It will artificially lower the rate when the birth number is on the increase (the rate being calculated on too high a population at risk), which is the case in

1942 and 1943, and it will artificially heighten the rate when the number of births has sharply decreased in the calendar year for which the infant deaths are counted, as in 1944. When the infant mortality rates are adjusted for the changing number of births by special statistical methods as is done by the Bureau of the Census<sup>1</sup> for a more accurate comparison, the following rates are obtained: 39.4 in 1944, 40.7 in 1943, 41.2 in 1942. These corrected rates show the consistent downward trend of infant mortality during the war years better than the conventionally computed infant mortality rates. However, the latter are more easily obtained and are usually employed in comparative statistics of States and counties.

There were 6,369 deaths from puerperal causes (maternal mortality) recorded in the United States during 1944 as against 7,197 maternal deaths in 1943 and 7,267 in 1942. This signifies in 1944 a decline of 11.5 percent from the maternal deaths in 1943 and of 12.4 percent from those of 1942. The maternal death rate, when related to 10,000 live births, amounted to 22.8 in 1944. This was the lowest ever obtained in the birth registration area of the United States. The corresponding death rates in 1943 being 24.5 and in 1942, 25.9 per 10,000 live births. Since the number of registered births in 1944 is approximately the same as in 1942, it is sounder to compare these 2 years for a full appraisal of the number of lives saved. Thus we may say that in 1944 approximately 900 mothers were saved from death in this new reduction of maternal mortality. However, it is also true that much more can still be done, for the majority of all puerperal deaths can be assumed to be preventable.

\* Latest figures obtained from the National Office of Vital Statistics show a further decrease of both maternal and infant mortality rates in 1945, together with a slight decrease of the birth rate in 1945. The final rates for infant mortality are 38.3 and for maternal mortality 2.1 per 1,000 live births. The birth rate was 19.6 per 1,000 estimated population in 1945, according to 2,735,456 registered live births in the United States, which, however, is followed by an appreciable new increase in 1946. The estimated number of births in 1946 is approximately 3,260,000 (provisional figure of the Bureau of the Census).

### Note for all tables:

- (one dash) means zero in tabulation of absolute numbers
- 0 means zero in tabulation of relative figures (rates, percentages, etc.)
- 0.0 means rate or percent is less than 0.05 but more than 0

It is further worth mentioning in this summary that the proportion of the births attended by physicians and occurring in hospitals has again increased from 67.9 percent in 1942 to 72.1 in 1943 and 75.6 in 1944, while the proportion attended by doctors but occurring in homes (or not in hospitals) has decreased from 24.7 to 21.0 and 17.7 percent, respectively, in the 3 years. Altogether the proportion of births attended by physicians (in hospitals and in homes) has changed very little, the total percentage was 93.3 in 1944, 93.1 in 1943, and 92.6 in 1942. The small remainder was attended by midwives or other nonmedical persons.

All materials presented in the following report are based on data recently issued in a series of Special Reports by the Division of Vital Statistics of the Census Bureau or, after the reorganization of Government agencies effected in the summer of 1946, by the National Office of Vital Statistics. All data on births and infant and maternal deaths are reported in the source tabulation according to place of permanent residence of the mother or the decedent, which has greater meaning for local and State-to-State comparisons than the place where the birth or death occurred. The place of occurrence might be a hospital, maternal home, or any place in a neighboring city, county or State. For statistics on the United States, of course, the results by residence or by occurrence do not differ.

## Births

In order to show the differential natality and mortality by States, it will be necessary to compare the records of 1944 and 1943 in some detail. Since the death rates for infant and maternal mortality are usually related to the births of the same calendar year as "the population at risk" it seems sound to start the discussion with the births. The summary table 1, shows for the United States as a whole the number of births and birth rates for the white and nonwhite population; the nonwhite births are further subdivided by specified race.

Of the 2,794,800 registered live births in 1944, 2,454,700 or 87.8 percent were white, 324,183 or 11.6 percent were Negro, and only the small remainder of 15,917 or less than 1 percent belonged to other nonwhite races. In 1943, the percent distribution by race was very similar. The birth rate in 1944, based on the total population includ-

**TABLE 1—Births and birth rates by race: United States, 1944 and 1943**

(Exclusive of stillbirths. Rates per 1,000 estimated population including armed forces overseas)

Race	Number		Rate	
	1944	1943	1944	1943
Total...	2, 794, 800	2, 934, 860	20. 2	21. 5
White.....	2, 454, 700	2, 594, 763	19. 8	21. 2
Nonwhite.....	340, 100	340, 097	23. 7	24. 1
Negro.....	324, 183	324, 865	23. 7	24. 1
Indian.....	10, 541	10, 151	28. 5	28. 2
Japanese.....	2, 889	2, 641	23. 0	21. 3
Chinese.....	1, 291	1, 364	16. 3	17. 3
Other.....	1, 196	1, 076	22. 2	20. 4

ing the armed forces overseas, was 20.2 per 1,000 population or somewhat lower than in 1943. The birth rate of the nonwhite population as a whole (23.7) was significantly higher than that of the white (19.8). When the nonwhite group is subdivided into more specified races, the Negro population being by far the largest group among them exhibits the same birth rate as the entire nonwhite group, in both calendar years alike. This proves that the quantitative weight of the other nonwhite groups is too small to have any visible influence on the over-all birth rate of the nonwhites. It will be noticed, however, that the separate birth rate of the Indians, 28.5 in 1944 and 28.2 in 1943, is markedly above both the white and the Negro birth rates. Thus we see the natives still keeping the more primitive or natural pattern of reproduction which the other races have lost in the course of their civilization. On the other hand, the death rate of the Indians is higher, too, than that of the Negro and especially higher than that of the white population, so that the net increase (total births minus deaths) of the Indian population is very small from year to year. It amounted to 5,793 in 1944 and 5,339 in 1943. (The excess of births over deaths for the Negroes was 159,003 and 153,618 in 1944 and 1943 respectively; and for the whites in continental United States 1,215,871 and 1,313,876).

In this context it should be mentioned that the under-registration of births is much higher for the nonwhite races than for the white. This has

recently been emphasized by a number of thorough investigations by the Census Bureau. (An original birth registration test was made for the 4 months from December 1, 1939, to March 31, 1940,<sup>2</sup> and the figures estimated for later years.)<sup>3</sup> The completeness of birth registration in the entire United States for the test period was 92.5 percent; for white births it was 94.0 percent and for nonwhite births 81.5, which leaves a large number of actual births unregistered (about 200,000 each year or an estimated total of 2,000,000 in the 10-year period, 1935 to 1944). There are naturally wide variations of under-registration in the different regions and States, especially in the nonwhite group.

In table 2 the births by race and the births rates per 1,000 estimated population are given for the

total United States and each State to show the differential natality in 1944. The proportion of all nonwhite births is also added.

The birth rate in the United States as a whole, based on the total population, is 20.2; when based on the civilian population, it rises to 22.1. The latter rate is shown for more accurate comparison with the individual States for which all rates are based on civilian population. Birth rates higher than for the total United States are shown in a number of States, especially in the southern States with large Negro populations and in some of the Mountain States (for instance, New Mexico, Utah, Idaho); in the more industrialized States of the Northeast the birth rates are mostly below United States average. In 1944, the highest birth rate was reached in New Mexico (32.1), followed

**TABLE 2—Births by race, and birth rate per 1,000 estimated population: United States and each State, 1944<sup>1</sup>**

(Exclusive of stillbirths)

Area	Births						Total birth rate <sup>2</sup>
	Total	White	Negro	Other	All non-white	Percent of total nonwhite	
United States.....	2, 794, 800	2, 454, 700	324, 183	15, 917	340, 100	12. 2	<sup>2</sup> 22. 1 <sup>3</sup> 20. 2
Alabama.....	74, 415	47, 504	26, 886	25	26, 911	36. 2	27. 5
Arizona.....	14, 225	12, 408	386	1, 431	1, 817	12. 8	24. 8
Arkansas.....	41, 240	31, 357	9, 894	34	9, 883	24. 0	24. 2
California.....	179, 123	169, 967	5, 594	3, 562	9, 156	5. 1	22. 5
Colorado.....	23, 931	23, 282	285	364	649	2. 7	22. 6
Connecticut.....	34, 278	33, 382	892	4	896	2. 6	10. 6
Delaware.....	5, 993	5, 102	886	5	891	14. 9	21. 9
District of Columbia.....	15, 758	10, 443	5, 285	30	5, 315	33. 7	19. 0
Florida.....	48, 418	36, 125	12, 255	38	12, 293	25. 4	24. 0
Georgia.....	76, 540	49, 345	27, 176	19	27, 195	35. 5	25. 8
Idaho.....	12, 241	12, 067	3	171	174	1. 4	26. 3
Illinois.....	142, 005	132, 539	9, 229	237	9, 466	6. 7	18. 9
Indiana.....	71, 354	68, 532	2, 809	13	2, 822	4. 0	21. 2
Iowa.....	46, 564	46, 240	278	46	324	0. 7	20. 8
Kansas.....	34, 976	33, 716	1, 176	84	1, 260	3. 6	21. 1
Kentucky.....	64, 225	60, 901	3, 316	8	3, 324	5. 2	25. 6
Louisiana.....	61, 050	37, 463	23, 478	109	23, 587	38. 6	26. 4
Maine.....	17, 762	17, 689	32	41	73	0. 4	22. 9
Maryland.....	43, 915	35, 670	8, 226	19	8, 245	18. 8	22. 1
Massachusetts.....	78, 209	76, 979	1, 173	57	1, 230	1. 6	19. 3
Michigan.....	114, 700	108, 499	5, 992	209	6, 201	5. 4	21. 3
Minnesota.....	56, 113	55, 571	83	459	542	1. 0	22. 5
Mississippi.....	56, 940	25, 976	30, 848	116	30, 964	54. 4	28. 9
Missouri.....	67, 990	62, 995	4, 956	39	4, 995	7. 3	19. 5
Montana.....	10, 943	10, 326	17	600	617	5. 6	23. 8

Area	Births						Total birth rate <sup>2</sup>
	Total	White	Negro	Other	All non-white	Percent of total nonwhite	
Nebraska.....	24, 575	24, 138	300	137	437	1. 8	21. 2
Nevada.....	3, 028	2, 823	54	151	205	6. 8	22. 8
New Hampshire.....	8, 548	8, 534	14	—	14	0. 2	19. 1
New Jersey.....	76, 265	70, 706	5, 524	35	5, 559	7. 3	18. 8
New Mexico.....	15, 585	14, 419	133	1, 033	1, 166	7. 5	32. 1
New York.....	229, 534	217, 104	12, 004	426	12, 430	5. 4	18. 6
North Carolina.....	90, 629	62, 462	27, 148	1, 019	28, 167	31. 1	27. 3
North Dakota.....	13, 530	13, 213	—	317	317	2. 3	25. 7
Ohio.....	133, 598	125, 904	7, 631	63	7, 694	5. 8	19. 7
Oklahoma.....	46, 725	41, 615	3, 219	1, 891	5, 110	10. 9	24. 0
Oregon.....	24, 150	23, 705	160	285	445	1. 8	20. 5
Pennsylvania.....	178, 370	166, 711	11, 604	55	11, 659	6. 5	19. 5
Rhode Island.....	13, 754	13, 446	304	4	308	2. 2	19. 9
South Carolina.....	51, 467	27, 874	23, 572	21	23, 593	45. 8	29. 0
South Dakota.....	12, 769	12, 013	11	745	756	5. 9	23. 8
Tennessee.....	68, 272	57, 311	10, 955	6	10, 961	16. 1	24. 4
Texas.....	165, 900	145, 500	20, 259	141	20, 400	12. 3	26. 5
Utah.....	16, 180	15, 906	28	246	274	1. 7	27. 7
Vermont.....	6, 824	6, 821	2	1	3	0. 0	22. 0
Virginia.....	69, 175	52, 001	17, 147	27	17, 174	24. 8	25. 0
Washington.....	44, 528	43, 363	371	794	1, 165	2. 6	23. 2
West Virginia.....	41, 304	39, 008	2, 296	—	2, 296	5. 6	24. 2
Wisconsin.....	61, 547	60, 743	322	482	804	1. 3	21. 0
Wyoming.....	5, 635	5, 302	15	318	333	5. 9	24. 1

<sup>1</sup> For meaning of symbols see note on p. 1.

<sup>2</sup> Rates for United States and individual States based on civilian population in the States.

<sup>3</sup> Rate for the United States based on total population including armed forces overseas.

by South Carolina (29.0) and Mississippi (28.9). The lowest birth rates were registered in New York (18.6), New Jersey (18.8), Illinois (18.9), and the District of Columbia (19.0). These figures make it evident that urbanization tends to lower the birth rate of the people.

## Maternal Mortality

Of the 6,369 deaths from puerperal causes recorded in the United States, in 1944, 4,648 were of white mothers and 1,721 of nonwhite mothers. The race differential, in comparison with the preceding year, will be best seen from the summary table 3, which shows the deaths and the death rates per 10,000 live births, the ratios of the death rates, nonwhite to white, and the percentage change from 1943 to 1944, taking 1943 as 100.

This summary table brings out very clearly the high race differential in maternal mortality. The death rate for white mothers was 18.9 per 10,000 live births, but for nonwhite mothers it was 50.6, or almost three times as high. (See the ratios, nonwhite to white, in the last column.) The decrease in the death rate of the white group was very considerable, 10 percent from 1943 to 1944 (the relative figure in 1944 being 90); the decrease in the absolute number of maternal deaths was even higher (15 percent) due partly to the large birth decrease coinciding with the reduction of the maternal mortality rate. Among the colored mothers puerperal deaths and death rates per 10,000 live births decreased very little, only 1 percent from 1943 to 1944. For that reason, the mortality ratio, nonwhite to white, was even higher in 1944 than in 1943, meaning an increase of the racial differential. (See relative figures.) Thus the maternal mortality of the nonwhite mothers

is still considerably higher than that of the white mothers, nor has it decreased in the last years, to a corresponding degree. This is the point where our present efforts in maternal care have to be strengthened by health education, early and sufficient hospitalization, and other health programs. "Obstetric care has undergone an evolution in this generation, but the Negro has not participated fully in the benefits of modern obstetrics. It is not possible to have two systems of maternal welfare; there must be one all-inclusive health program." (Philip F. Williams in a recent article on maternal welfare.)<sup>4</sup>

To show the State-to-State variation in maternal mortality, table 4 has been prepared, giving for 1944 the deaths and death rates by race in the United States, the geographic divisions, and the individual States within each division. The variation is rather high, especially in the nonwhite group; it has to be recalled, however, that maternal mortality rates in the smaller units are subject to relatively large chance errors due to the small number of births in some of the States, particularly for the nonwhite group. (See the births in table 2.) Therefore the ratio, nonwhite to white, showing the race differential is inserted only for the geographic divisions, not for the States.

The total rates (both racial groups combined) are of less value than the separate ones because of the varying size of the colored population in the individual States which necessarily influences the arithmetic result of a total death rate, as for instance, when one State has a proportion of 1 or 5 percent, others of 25 or 50 percent, of nonwhite births. If we glance first at the separate maternal mortality rates for the white and nonwhite groups in the 9 geographic divisions, we notice a relatively

small variation among the whites. The lowest death rate was observed in the Pacific area (16.0), followed by the West and East North Central divisions and then by New England, all of them below United States average (18.9). The highest maternal death rate among the whites (24.4) occurred in the East South Central group (Kentucky, Tennessee, Alabama, Mississippi). In all the divisions of the South, and also in the Mountain division, the rates were above average, with the Middle Atlantic very close to the average.

In general, the geographic fluctuations in maternal mortality of the nonwhite races are similar, although the variation is more striking than in the white race. The lowest rate (in the Pacific, 35.3) is not much more than half the rate in the Mountain division (61.1). It will be kept in mind that these rates are based on rather small numbers of maternal deaths and births among nonwhite mothers and therefore are subject to large chance errors. This is the case furthermore in New England and West North Central where the rates are above the average in the nonwhite group. However, the racial trend is consistent in all geographic regions of the country, the nonwhite group exhibiting a rate 2.2 to 3.4 times as high as the white group.

In the individual States this variation among the nonwhites from State to State is still higher. In some of the New England States no maternal death occurred among the nonwhites in 1944, while in Massachusetts there were quite a few, yielding a relatively high maternal death rate. But this does not necessarily reflect more or less favorable health conditions; it only reflects the small population exposed to risk in some States as evidenced by the small number of nonwhite

**TABLE 3—Maternal mortality by race: United States, 1944 and 1943**

Year	Number of maternal deaths			Rate per 10,000 live births			Ratio of rates: nonwhite to white
	Total	White	Nonwhite	Total	White	Nonwhite	
1944.....	6,369	4,648	1,721	22.8	18.9	50.6	2.7
1943.....	7,197	5,463	1,734	24.5	21.1	51.0	2.4
Relative figures (1943=100)							
1944.....	88	85	99	93	90	99	113

births. Even for the whites the number of births in a single calendar year is not always large enough to give valid rates; yet in all States except Nevada the number of white births is above 5,000 while in more than half of the States the number of nonwhite births is below 5,000 and in quite a few below 1,000 or even 100 a year. (See the exact numbers in table 2.)

The lowest maternal death rates in the white race (less than 10 per 10,000 live births) are observed in the report year in Wyoming with 7.5 (4 deaths of mothers among 5,302 births), the District of Columbia with 9.6 (10 deaths among 10,443 births), and in Delaware with 9.8 (5 deaths among 5,102 births). These are indeed very favorable maternal mortality rates, based on a reasonable number of births (all above 5,000). The rates in Delaware and the District of Columbia are practically the same. In the neighboring Maryland, the maternal mortality rate was much higher with 17.4 (62 deaths among 35,670 births), though still somewhat below the United States average for white mothers (18.9). Yet even the high difference between Maryland and the other two areas could be explained by chance fluctuation in the strict statistical sense, though it is not very likely that such a difference is caused by mere chance. It seems to be a real fact that in 1944 Maryland has, for the white population, a dis-

tinently higher mortality from puerperal causes than the District of Columbia. The opposite, however, is true for the nonwhite population. Here Maryland exhibits a much lower rate (24.3) than the District (43.3). Of course, one has to consider that chance fluctuation (when calculated according to the laws of probability) runs rather high for the nonwhites due to their smaller number; thus chance alone could make the rates differ in another calendar year. This example is offered as a caution against putting too much emphasis on small differences between States, especially in the nonwhite group. Since all birth and death statistics, as reported by the Bureau of the Census, are based on place of residence of the mother, such deaths as occur in places or hospitals outside the residence area do not influence the statistical results.

In 1944, the highest maternal death rates among the white mothers were reported for the New England States in New Hampshire (28.1), for Middle Atlantic in Pennsylvania (23.5), for the South Atlantic in Georgia (25.7), for East South Central in Mississippi (27.3), for West South Central in Louisiana (22.7) and for the Mountain division in New Mexico (37.5), the latter rate being by far the most unfavorable for the white race. In the States of the East North Central, West North Central, and Pacific divisions all

**TABLE 4—Maternal mortality by race: United States, each division and State, 1944**

Area	Number of maternal deaths			Rate per 10,000 live births			Ratio of rates: non-white to white
	Total	White	Non-white	Total	White	Non-white	
United States.....	6, 369	4, 648	1, 721	22. 8	18. 9	50. 6	2. 7
Geographic division:							
New England.....	294	280	14	18. 4	17. 9	55. 5	3. 1
Middle Atlantic.....	999	869	130	20. 6	19. 1	43. 8	2. 3
East North Central.....	954	840	114	18. 2	16. 9	42. 2	2. 5
West North Central.....	466	417	49	18. 2	16. 8	56. 8	3. 4
South Atlantic.....	1, 295	646	649	29. 2	20. 3	51. 8	2. 6
East South Central.....	847	467	380	32. 1	24. 4	52. 7	2. 2
West South Central.....	854	539	315	27. 1	21. 1	53. 4	2. 5
Mountain.....	243	211	32	23. 9	21. 9	61. 1	2. 8
Pacific.....	417	379	38	16. 8	16. 0	35. 3	2. 2
New England:							
Maine.....	40	40	—	22. 5	22. 6	0	
New Hampshire.....	24	24	—	28. 1	28. 1	0	
Vermont.....	13	13	—	19. 1	19. 1	0	

Area	Number of maternal deaths			Rate per 10,000 live births			Ratio of rates: non-white to white
	Total	White	Non-white	Total	White	Non-white	
New England:—Continued							
Massachusetts.....	140	131	9	17.9	17.0	73.2	
Rhode Island.....	25	24	1	18.2	17.8	32.5	
Connecticut.....	52	48	4	15.2	14.4	44.6	
Middle Atlantic:							
New York.....	425	382	43	18.5	17.6	34.6	
New Jersey.....	120	95	25	15.7	13.4	45.0	
Pennsylvania.....	154	392	62	25.5	23.5	53.2	
East North Central:							
Ohio.....	257	224	33	19.2	17.8	42.9	
Indiana.....	141	126	15	19.8	18.4	53.2	
Illinois.....	254	223	31	17.9	16.8	32.7	
Michigan.....	193	163	30	16.8	15.0	48.4	
Wisconsin.....	109	104	5	17.7	17.1	62.2	
West North Central:							
Minnesota.....	77	72	5	13.7	13.0	92.3	
Iowa.....	83	82	1	17.8	17.7	30.9	
Missouri.....	152	124	28	22.4	19.7	56.1	
North Dakota.....	24	22	2	17.7	16.7	63.1	
South Dakota.....	23	19	4	18.0	15.8	52.9	
Nebraska.....	43	43	—	17.5	17.8	0	
Kansas.....	64	55	9	18.3	16.3	71.4	
South Atlantic:							
Delaware.....	9	5	4	15.0	9.8	44.9	
Maryland.....	82	62	20	18.7	17.4	24.3	
District of Columbia.....	33	10	23	20.9	9.6	43.3	
Virginia.....	183	82	101	26.5	15.8	58.8	
West Virginia.....	89	81	8	21.5	20.8	34.8	
North Carolina.....	266	136	130	29.4	21.8	46.2	
South Carolina.....	193	57	136	37.5	20.4	57.6	
Georgia.....	279	127	152	36.5	25.7	55.9	
Florida.....	161	86	75	33.3	23.8	61.0	
East South Central:							
Kentucky.....	159	139	20	24.8	22.8	60.2	
Tennessee.....	191	141	50	28.0	24.6	45.6	
Alabama.....	278	116	162	37.4	24.4	60.2	
Mississippi.....	219	71	148	38.5	27.3	47.8	
West South Central:							
Arkansas.....	114	56	58	27.6	17.9	58.7	
Louisiana.....	207	85	122	33.9	22.7	51.7	
Oklahoma.....	111	88	23	23.8	21.1	45.0	
Texas.....	422	310	112	25.4	21.3	54.9	
Mountain:							
Montana.....	16	15	1	14.6	14.5	16.2	
Idaho.....	30	30	—	24.5	24.9	0	
Wyoming.....	5	4	1	8.9	7.5	30.0	
Colorado.....	59	52	7	24.7	22.3	107.9	
New Mexico.....	62	54	8	39.8	37.5	68.6	
Arizona.....	42	29	13	29.5	23.4	71.5	
Utah.....	22	21	1	13.6	13.2	36.5	
Nevada.....	7	6	1	23.1	21.3	48.8	
Pacific:							
Washington.....	70	64	6	15.7	14.8	51.5	
Oregon.....	43	42	1	17.8	17.7	22.5	
California.....	304	273	31	17.0	16.1	33.9	

**TABLE 5—Maternal mortality by age: United States, 1944 and 1943**

Age	1944			1943		
	Maternal deaths	Live births	Rate per 10,000 live births	Maternal deaths	Live births	Rate per 10,000 live births
Total <sup>1</sup> .....	6, 369	2, 794, 800	22. 8	7, 197	2, 934, 860	24. 5
10-14 years.....	15	3, 565	42. 1	37	3, 737	99. 0
15-19 years.....	642	301, 130	21. 3	747	343, 550	21. 7
20-24 years.....	1, 230	866, 946	14. 2	1, 473	930, 015	15. 8
25-29 years.....	1, 322	769, 015	17. 2	1, 589	822, 249	19. 3
30-34 years.....	1, 434	511, 869	28. 0	1, 528	510, 413	29. 9
35-39 years.....	1, 196	263, 442	45. 4	1, 268	248, 870	51. 0
40-44 years.....	479	70, 073	68. 4	493	66, 406	74. 2
45 and over.....	45	4, 965	90. 6	54	5, 020	107. 6

<sup>1</sup> Includes ages not stated.

maternal death rates are favorable and all of them, except Missouri, below the United States average. It ought to be mentioned further that in other divisions, too, there are some States with very favorable rates such as Connecticut (14.4), New Jersey (13.4), Utah (13.2), Montana (14.5). The still lower rates in Wyoming, District of Columbia, and Delaware were mentioned in the beginning of this section. The rank order of the States, showing minor differences, may change from year to year, but all these rates for the white population are based on reasonably large numbers. More details will be seen in table 4, especially the much higher maternal death rates, on the average, of the nonwhite mothers.

## Maternal Mortality by Age

In table 5 maternal deaths and death rates per 10,000 live births are shown by age of mother for the two years 1944 and 1943. In 1944 maternal deaths were observed most frequently in the age group 30-34 years, with 1,434 deaths out of a total of 6,369; in the preceding year it was the age group 25-29 years that showed the largest number of maternal deaths, 1,589 out of 7,197. The rates in the age group 30-34 years are above the average rate for all ages, but not the highest, by far, among the various 5-year age groups shown in the table. The lowest death rate in 1944 occurred in the age

group 20-24 years, with 14.2 per 10,000 live births in this age; in 1943 in the same age group, with 15.8. This, then, is the age most favorable for having children as far as maternal mortality can serve as a criterion. The maternal death rates in the two age groups 15-19 and 25-29 years are likewise lower than the rates for all ages together. The youngest mothers, 10-14 years old, who have hardly reached physical maturity, have a very high death rate from puerperal causes, 42.1 in 1944 and 99.0 in 1943; as have the older mothers from the age group 35-39 on. It should be mentioned that the rates in the youngest group, 10-14, and the oldest, 45 and over, are both subject to high chance fluctuation due to small numbers, as the change of the death rate from one year to another makes evident. In spite of some still high age-specific death rates, it is encouraging that in all age groups maternal mortality rates have more or less dropped from 1943 to 1944.

## Causes of Maternal Deaths

Out of a total of 6,369 maternal deaths in 1944, 2,276, or 36 percent, were caused by puerperal infection (septicemia, phlebitis, thrombophlebitis, pyelitis, etc.); 1,607, or 25 percent, by all kinds of puerperal toxemia; and 1,897, or 30 percent, by hemorrhages of pregnancy and childbirth, including trauma and shock. These are the three main

causes of maternal death which taken together comprise more than 90 percent. The proportional distribution of these three main causes was very similar in 1943, though the absolute number has decreased in each group. The absolute number of deaths, the percent distribution, and the death rate per 10,000 live births are shown in table 6 with a further subdivision by period or termination of gestation, abortion, ectopic gestation, before delivery, and during or after delivery.

The decrease from 1943 to 1944 was smallest for the deaths from hemorrhage, trauma, and shock, the death rates per 10,000 live births being the same in the 2 years (6.8), while the death rate for puerperal infection decreased by 8 percent (from 8.8 to 8.1) and the death rate for puerperal toxemia by 14 percent (from 6.6 to 5.7). These percent decreases are naturally somewhat casual from one year to another. (From 1942 to 1943, for instance, there was no decrease in maternal mor-

**TABLE 6**—Maternal deaths and death rates for main puerperal causes in relation to termination of gestation: United States, 1944 and 1943 <sup>1</sup>

Cause of death	Total		Abortion <sup>2</sup>		Ectopic gestation		Before delivery		During or after delivery	
	1944	1943	1944	1943	1944	1943	1944	1943	1944	1943
Maternal deaths										
All causes.....	6, 369	7, 197	996	1, 165	345	332	915	1, 022	4, 113	4, 678
Puerperal infection.....	2, 276	2, 593	701	789	63	62	151	179	1, 361	1, 563
Puerperal toxemia.....	1, 607	1, 936	67	110	—	—	589	690	951	1, 136
Hemorrhage, trauma and shock.....	1, 897	1, 991	115	113	282	270	69	65	1, 431	1, 543
Other puerperal causes..	589	677	113	153	—	—	106	88	370	436
Percent distribution										
All causes.....	100	100	100	100	100	100	100	100	100	100
Puerperal infection.....	35. 7	36. 0	70. 4	67. 7	18. 3	18. 7	16. 5	17. 5	33. 1	33. 4
Puerperal toxemia.....	25. 2	26. 9	6. 7	9. 4	0	0	64. 4	67. 5	23. 1	24. 3
Hemorrhage, trauma and shock.....	29. 8	27. 7	11. 5	9. 7	81. 7	81. 3	7. 5	6. 4	34. 8	33. 0
Other puerperal causes..	9. 2	9. 4	11. 3	13. 1	0	0	11. 6	8. 6	9. 0	9. 3
Rate per 10,000 live births										
All causes.....	22. 8	24. 5	3. 6	4. 0	1. 2	1. 1	3. 3	3. 5	14. 7	15. 9
Puerperal infection.....	8. 1	8. 8	2. 5	2. 7	0. 2	0. 2	0. 5	0. 6	4. 9	5. 3
Puerperal toxemia.....	5. 7	6. 6	0. 2	0. 4	0	0	2. 1	2. 4	3. 4	3. 9
Hemorrhage, trauma and shock.....	6. 8	6. 8	0. 4	0. 4	1. 0	0. 9	0. 2	0. 2	5. 1	5. 3
Other puerperal causes..	2. 1	2. 3	0. 4	0. 5	0	0	0. 4	0. 3	1. 3	1. 5

<sup>1</sup> For meaning of symbols see note on p. 1.

<sup>2</sup> Gestation less than 28 weeks.

tality from toxemia at all but a larger decrease from puerperal infection.) However, the time trend over a longer period is quite consistent, showing approximately the same decrease for all three main causes.<sup>5</sup>

The subdivision of maternal deaths according to termination of gestation takes account of time of delivery to a certain extent, since abortion is defined in the International List of Causes of Death (Fifth Revision, 1938) as "the termination of a uterine pregnancy prior to 7 lunar months (28 weeks) of gestation" and childbirth, correspondingly, as the termination after 7 lunar months or more of gestation. However, this subdivision is not based primarily on time of delivery since ectopic gestation does not involve any exact time element but only the dislocation of the ovum, i. e., an extra-uterine pregnancy.

The subdivision of maternal deaths according to termination of gestation reveals the interesting fact that by far the great majority of the deaths due to abortion (Nos. 140, 141 of the International List) were caused by infection, more than two-thirds in 1944 and 1943 alike; more than four-fifths of the deaths during ectopic gestation (No. 142) were due to hemorrhages as can be expected. But a majority of the deaths occurring before delivery (deaths during pregnancy in the terms of the International List, Nos. 143-145) were caused by toxemia. This statistical result confirms the clinical experience according to which most maternal toxemias (eclampsia, pre-eclampsia, hyperemesis, etc.) occur before delivery of the child. The absolute number of deaths from maternal toxemias is still larger for the period during or after delivery (during childbirth and the puerperium, Nos. 146-150 of the International

List); but in this period the deaths from the other main causes, infection and hemorrhage, trauma or shock, prevail over toxemia as table 6 makes evident.

As for the distribution of the deaths over the 4 periods, the majority of all maternal deaths occurred during or after delivery. In 1944, out of a total of 6,369 deaths, 4,113 or 65 percent occurred at this time; in addition, 996 deaths or 16 percent were due to abortion, 345 or 5 percent to ectopic gestation, and 915 or 14 percent occurred during pregnancy before delivery of the child. The proportions were almost exactly the same in the preceding year. In the comparison of the 2 years, table 7, the maternal mortality rates are once more summarized, either by cause of death or by termination of gestation, and the percent change for each item is shown.

## Infant Mortality

In 1944, 111,127 deaths under 1 year of age were recorded in the United States, as compared with 118,484 in 1943. This is a decrease of more than 7,000 infant deaths (more than 6 percent), which of course is somewhat connected with the birth decrease from 1943 to 1944. Of these deaths, 90,607 were of white infants and 20,520 of non-white infants. The infant mortality rates, subdivided by sex, show again the well-known statistical fact that the male infant runs a higher risk of dying before reaching his first birthday than the female. The greater susceptibility of the male starts with the first day of life, in both racial groups alike, but the sex difference in infant mortality is greater for the white race.

**TABLE 7**—Maternal deaths per 10,000 live births, by cause of death or by termination of gestation: United States, 1944 and 1943

Cause of death	1944	1943	Percent change	Termination of gestation	1944	1943	Percent change
All causes.....	22.8	24.5	-7	All gestations.....	22.8	24.5	-7
Puerperal infection.....	8.1	8.8	-8	Abortion.....	3.6	4.0	-10
Puerperal toxemia.....	5.7	6.6	-14	Ectopic.....	1.2	1.1	+9
Hemorrhage, trauma, or shock.	6.8	6.8	0	Before delivery.....	3.3	3.5	-6
Other puerperal causes.....	2.1	2.3	-9	During or after delivery.....	14.7	15.9	-8

**TABLE 8—Infant mortality by race and sex: United States, 1944 and 1943**

(Exclusive of stillbirths. Deaths under 1 year per 1,000 live births)

Year	All races			White			Nonwhite			Ratio of rates: nonwhite to white
	Total	Male	Female	Total	Male	Female	Total	Male	Female	
1944-----	39. 8	44. 1	35. 2	36. 9	41. 2	32. 4	60. 3	65. 5	55. 0	1. 6
1943-----	40. 4	45. 1	35. 4	37. 5	42. 0	32. 7	62. 5	68. 9	55. 9	1. 7
Relative figures (1943=100)										
1944-----	99	98	99	98	98	99	96	95	98	94

There were altogether 63,264 male infants and only 47,863 female infants who died before their first birthday; among the whites there were 51,997 male and 38,610 female deaths, among the nonwhites 11,267 male and 9,253 female. This excess of male deaths is only partly due to the other well-established fact that in each year and each nation more male children are born than female, the so-called *sex ratio at birth* in the United States in 1944 being for all races, 105.6 males to 100 females. For the whites the ratio was 106.0 male to 100 female live births and for the nonwhites the remarkably lower ratio 102.2 males to 100 females. When the infant deaths are related to the respective number of births in the sexes, the boys still retain a distinctly higher infant mortality rate than the girls. This will be seen from the summary table 8, showing the race and sex differential in infant mortality for 1944 and 1943.

There is a certain decrease in infant mortality for all racial groups from 1943 to 1944. The percent decrease (see relative figures) was greater for the nonwhite group than for the white this time (in contrast to maternal mortality). Therefore, the ratio of the infant mortality rates, nonwhite to white, was somewhat smaller in 1944 (1.6) than in 1943 (1.7). Yet the absolute number of infant deaths is so much greater than the number of maternal deaths that the racial differential in infant mortality carries heavier weight. Several thousand Negro babies would be saved each year by reducing their mortality rate to the level of the white infants. The sex differential of the infant mortality rates is manifest in all racial groups.

## Age of Infants at Death

Infant mortality is highest on the first day of life, declining subsequently from day to day, from week to week, and month to month. Of the 111,127 infant deaths in 1944, 32,052 or 29 percent occurred on the first day (the same percentage as in 1943); 68,996 or 62 percent of the total died when less than 1 month old (61 percent in 1943). When related to the live births of the calendar year 1944, the mortality rate for infants under 1 day was 11.5 per 1,000 live births; for infants under 1 month, 24.7 (almost exactly the same rates as in 1943). This neonatal mortality (under 1 month) has not decreased to the same degree as the mortality rate in the succeeding months. Therefore, though neonatal mortality has been reduced over a longer period of years (for instance from 35.7 in 1930 to 24.7 in 1944), the proportion of neonatal deaths to all infant deaths has steadily increased during the last years. This proportion was 55 percent in 1930, 58 percent in 1935, 61 percent in 1940, and 62 percent in the year of the present report. The proportional increase of deaths under 1 day is even more marked. *Thus the problem of further reducing infant mortality concentrates more and more on the neonatal period together with a possible reduction of the stillbirth rate, which has not changed very much in the last years and is even higher than the entire neonatal mortality rate.* The stillbirth rate, also related by the Bureau of the Census to the live births, was 27.0 in 1944,

26.7 in 1943, and 28.2 in 1942. The total loss of life, then, through stillbirths and neonatal deaths amounts in 1944 to a rate of 51.7 per 1,000 live births. To reduce this enormous loss of life in the prenatal and neonatal period is, therefore, the largest task in reducing infant mortality.

Table 9 presents the absolute number and rates for infant deaths by age and stillbirths, showing also the respective race differentials in 1944 and 1943.

The race differential was highest for stillbirths; almost twice as many stillbirths occurred in the nonwhite population per 1,000 live births as in the white. This differential is lowest for the deaths under 1 day, the ratio, nonwhite to white, being only 1.2. There is another item worth mentioning. While the nonwhite infants show a more or less higher death rate in all age periods, the proportion of neonatal deaths to all infant deaths manifests an opposite trend. Of the 90,607 white infants who died in 1944, 57,932 or 63.9 percent died before completing the first month of their life; of the 20,520 nonwhite babies 11,064 or 53.9 percent did not survive the first month. Thus a relatively larger part of the nonwhite deaths will occur in the following months of the first year. This opposite behavior of the two racial groups merely shows that the more infant mortality is lowered in other ages of infancy, the

greater the proportion of neonatal deaths to the total deaths. This was shown above for the time trend in the last decades; it is shown here for the racial trend at one and the same period.

## Causes of Infant Deaths

The five leading causes of infant mortality in 1944 were, as in the preceding year, premature birth, pneumonia and influenza, congenital malformations, injury at birth, and diarrhea, enteritis, etc., which together accounted for nearly three quarters of all infant deaths. On the other hand, the acute infectious diseases of childhood (measles, scarlet fever, whooping cough, diphtheria) and the more chronic infections (dysentery, tuberculosis, syphilis) play an increasingly minor part in infant mortality. In table 10 the absolute numbers and the death rates by race are shown for 1944 and 1943, the individual causes being arranged in rank order of the deaths for all races. The ratios of the death rates, nonwhite to white, are added for each cause (last two columns).

Premature birth is by far the first leading cause in infant mortality. Of the 111,127 infant deaths in 1944, 33,120 or 30 percent were caused by premature birth; in 1943 there were 34,563 deaths from prematurity, or 29 percent of 118,484. If we

**TABLE 9**—Infant deaths by age and race, stillbirths by race: United States, 1944 and 1943

Year	Under 1 year		Under 1 day		Under 1 month		Stillbirths	
	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
Number								
1944-----	90,607	20,520	27,569	4,483	57,932	11,064	60,053	15,442
1943-----	97,229	21,255	29,531	4,483	61,438	11,194	62,776	15,709
Rate per 1,000 live births								
1944-----	36.9	60.3	11.2	13.2	23.6	32.5	24.5	45.4
1943-----	37.5	62.5	11.4	13.2	23.7	32.9	24.2	46.2
Ratio of rates: nonwhite to white								
1944-----	1.6		1.2		1.4		1.9	
1943-----	1.7		1.2		1.4		1.9	

take together the deaths from premature birth, congenital malformations, injury at birth, and congenital debility as the more outstanding prenatal and natal causes, we have 60,017 deaths or 54 percent of all infant deaths in 1944 and 62,726 deaths or 53 percent in 1943. It will be noticed

that the rank order differs somewhat between white and nonwhite infants. In the white race congenital malformations is second cause with 13,249 deaths, exceeding in 1944 even the deaths from pneumonia and influenza, while in the nonwhite group it occupies fifth place with only

**TABLE 10**—Infant deaths and death rates for selected causes, by race: United States, 1944 and 1943

Cause of death in rank order of total deaths, 1944	Deaths under 1 year					
	1944			1943		
	Total	White	Nonwhite	Total	White	Nonwhite
All causes.....	111, 127	90, 607	20, 520	118, 484	97, 229	21, 255
Premature birth.....	33, 120	27, 904	5, 216	34, 563	29, 469	5, 094
Pneumonia and influenza.....	15, 674	11, 696	3, 978	18, 207	13, 810	4, 397
Congenital malformations.....	14, 205	13, 249	956	14, 435	13, 529	906
Injury at birth.....	10, 199	9, 093	1, 106	10, 990	9, 874	1, 116
Diarrhea, enteritis, etc.....	9, 239	7, 352	1, 887	8, 756	6, 997	1, 759
Accidents.....	2, 853	2, 267	586	3, 068	2, 472	596
Congenital debility.....	2, 493	1, 778	715	2, 738	1, 949	789
Acute infectious diseases <sup>1</sup> .....	2, 281	1, 696	585	3, 184	2, 483	701
Dysentery.....	991	792	199	1, 000	787	213
Syphilis.....	746	287	459	739	305	434
Tuberculosis (all forms).....	468	297	171	501	331	170
Ill-defined and unknown causes.....	4, 421	2, 105	2, 316	4, 978	2, 334	2, 644

Cause of death in rank order of total deaths, 1944	Rate per 1,000 live births						Ratio of rates: nonwhite to white	
	1944			1943			1944	1943
	Total	White	Non- white	Total	White	Non- white		
All causes.....	39. 8	36. 9	60. 3	40. 4	37. 5	62. 5	1. 6	1. 7
Premature birth.....	11. 9	11. 4	15. 3	11. 8	11. 4	15. 0	1. 3	1. 3
Pneumonia and influenza.....	5. 6	4. 8	11. 7	6. 2	5. 3	12. 9	2. 4	2. 4
Congenital malformations.....	5. 1	5. 4	2. 8	4. 9	5. 2	2. 7	0. 5	0. 5
Injury at birth.....	3. 6	3. 7	3. 3	3. 7	3. 8	3. 3	0. 9	0. 9
Diarrhea, enteritis, etc.....	3. 3	3. 0	5. 5	3. 0	2. 7	5. 2	1. 8	1. 9
Accidents.....	1. 0	0. 9	1. 7	1. 0	1. 0	1. 8	1. 9	1. 8
Congenital debility.....	0. 9	0. 7	2. 1	0. 9	0. 8	2. 3	3. 0	2. 9
Acute infectious diseases <sup>1</sup> .....	0. 8	0. 7	1. 7	1. 1	1. 0	2. 1	2. 4	2. 1
Dysentery.....	0. 4	0. 3	0. 6	0. 3	0. 3	0. 6	2. 0	2. 0
Syphilis.....	0. 3	0. 1	1. 3	0. 3	0. 1	1. 3	13. 0	13. 0
Tuberculosis (all forms).....	0. 2	0. 1	0. 5	0. 2	0. 1	0. 5	5. 0	5. 0
Ill-defined and unknown causes.....	1. 6	0. 9	6. 8	1. 7	0. 9	7. 8	7. 6	8. 7

<sup>1</sup> All deaths in 1944 (1943) from measles: 536 (318); scarlet fever: 13 (23); whooping cough: 1,323 (2,419); diphtheria: 89 (90); meningococcus meningitis: 320 (334).

956 deaths. When the rates per 1,000 live births for each individual cause are considered, congenital malformations is one of the few causes of death for which the nonwhites show a definitely lower rate, only about half that of the whites in both years. The nonwhite infants also show a lower rate for injury at birth. (See ratios, nonwhite to white.) Whether this result is a true fact characteristic of the pathology of the two racial groups, or whether it is caused by different reporting, or different diagnostic and medical supervision of the new born, is difficult to decide. In this respect it is worth mentioning that for the summary group "ill defined and unknown causes" (last line of table 10), the nonwhite infants exhibit in both years a much higher death rate than the white. Less than 1 death per 1,000 live births was reported among white infants for this collective group of causes against 6.8 and 7.8 in 1944 and 1943 respectively among nonwhite infants.

The race differential shows some other remarkable results. Disregarding "ill-defined and unknown causes" the ratio, nonwhite to white, is highest for syphilis and tuberculosis. Although the absolute number of deaths are small when compared with the leading causes, syphilis is 13 times and tuberculosis 5 times more frequent among nonwhite infants. The race differential shows clearly where we have to continue our efforts

in reducing infant mortality. This differential was distinct also for pneumonia and influenza (ratio, nonwhite to white, in 1944, 2.4), for congenital debility (3.0), and for the acute infectious diseases (2.4). It is noteworthy that in the two years covered by the report the race differential was practically the same for all listed causes, which increases the significance of the results.

## Infant Mortality by States

In table 11 infant deaths and death rates in 1944 are shown by race, in the same arrangement as for maternal mortality for the total United States, the geographic divisions, and the individual States. The ratio of the death rates, nonwhite to white, is again computed for the geographic divisions. The separate rates for white and nonwhite infants have greater value than the total rates (both races combined). A high percentage of nonwhite infants in a certain State must necessarily increase the total rate, and vice versa.

Favorable rates for the white infants as compared with the average rate in the United States (36.9) are obtained in all divisions of the Northeast and the Pacific; here all rates are below 35 per 1,000 live births while in the 3 divisions of the South the rates are above 40, and in the Mountain

**TABLE 11—Infant mortality by race: United States, each division and State, 1944**

Area	Number of deaths under 1 year			Rate per 1,000 live births			Ratio of rates: nonwhite to white
	Total	White	Nonwhite	Total	White	Nonwhite	
United States.....	111, 127	90, 607	20, 520	39. 8	36. 9	60. 3	1. 6
Geographic divisions:							
New England.....	5, 553	5, 406	147	34. 8	34. 5	58. 2	1. 7
Middle Atlantic.....	17, 264	15, 429	1, 835	35. 7	33. 9	61. 9	1. 8
East North Central.....	18, 526	17, 050	1, 476	35. 4	34. 4	54. 7	1. 6
West North Central.....	8, 751	8, 164	587	34. 1	32. 9	68. 0	2. 1
South Atlantic.....	20, 781	12, 847	7, 934	46. 9	40. 4	63. 4	1. 6
East South Central.....	12, 005	8, 077	3, 928	45. 5	42. 1	54. 4	1. 3
West South Central.....	14, 534	11, 091	3, 443	46. 2	43. 3	58. 4	1. 3
Mountain.....	5, 294	4, 648	646	52. 0	48. 1	123. 4	2. 6
Pacific.....	8, 419	7, 895	524	34. 0	33. 3	48. 7	1. 5
New England:							
Maine.....	829	823	6	46. 7	46. 5	82. 2	
New Hampshire.....	322	321	1	37. 7	37. 6	71. 4	
Vermont.....	277	277	—	40. 6	40. 6	0	
Massachusetts.....	2, 585	2, 510	75	33. 1	32. 6	61. 0	
Rhode Island.....	486	470	16	35. 3	35. 0	51. 9	
Connecticut.....	1, 054	1, 005	49	30. 7	30. 1	54. 7	

Area	Number of deaths under 1 year			Rate per 1,000 live births			Ratio of rates nonwhite to white
	Total	White	Nonwhite	Total	White	Nonwhite	
Middle Atlantic:							
New York.....	7, 535	6, 821	714	32. 8	31. 4	57. 4	
New Jersey.....	2, 593	2, 258	335	34. 0	31. 9	60. 3	
Pennsylvania.....	7, 136	6, 350	786	40. 0	38. 1	67. 4	
East North Central:							
Ohio.....	5, 147	4, 689	458	38. 5	37. 2	59. 5	
Indiana.....	2, 462	2, 303	159	34. 5	33. 6	56. 3	
Illinois.....	4, 602	4, 136	466	32. 4	31. 2	49. 2	
Michigan.....	4, 343	4, 013	330	37. 9	37. 0	53. 2	
Wisconsin.....	1, 972	1, 909	63	32. 0	31. 4	78. 4	
West North Central:							
Minnesota.....	1, 756	1, 716	40	31. 3	30. 9	73. 8	
Iowa.....	1, 540	1, 523	17	33. 1	32. 9	52. 5	
Missouri.....	2, 558	2, 234	324	37. 6	35. 5	64. 9	
North Dakota.....	479	452	27	35. 4	34. 2	85. 2	
South Dakota.....	445	368	77	34. 9	30. 6	101. 9	
Nebraska.....	810	774	36	33. 0	32. 1	82. 4	
Kansas.....	1, 163	1, 097	66	33. 3	32. 5	52. 4	
South Atlantic:							
Delaware.....	292	220	72	48. 7	43. 1	80. 8	
Maryland.....	1, 821	1, 247	574	41. 5	35. 0	69. 6	
District of Columbia.....	706	347	359	44. 8	33. 2	67. 5	
Virginia.....	3, 261	2, 169	1, 092	47. 1	41. 7	63. 6	
West Virginia.....	2, 149	1, 997	152	52. 0	51. 2	66. 2	
North Carolina.....	4, 115	2, 425	1, 690	45. 4	38. 8	60. 0	
South Carolina.....	2, 828	1, 274	1, 554	54. 9	45. 7	65. 9	
Georgia.....	3, 407	1, 779	1, 628	44. 5	36. 1	59. 9	
Florida.....	2, 202	1, 389	813	45. 5	38. 4	66. 1	
East South Central:							
Kentucky.....	2, 997	2, 745	252	46. 7	45. 1	75. 8	
Tennessee.....	3, 106	2, 484	622	45. 5	43. 3	56. 7	
Alabama.....	3, 389	1, 853	1, 536	45. 5	39. 0	57. 1	
Mississippi.....	2, 513	995	1, 518	44. 1	38. 3	49. 0	
West South Central:							
Arkansas.....	1, 433	1, 019	414	34. 7	32. 5	41. 9	
Louisiana.....	2, 824	1, 318	1, 506	46. 3	35. 2	63. 8	
Oklahoma.....	1, 923	1, 598	325	41. 2	38. 4	63. 6	
Texas.....	8, 354	7, 156	1, 198	50. 4	49. 2	58. 7	
Mountain:							
Montana.....	395	316	79	36. 1	30. 6	128. 0	
Idaho.....	416	396	20	34. 0	32. 8	114. 9	
Wyoming.....	232	205	27	41. 2	38. 7	81. 1	
Colorado.....	1, 183	1, 163	20	49. 4	50. 0	30. 8	
New Mexico.....	1, 389	1, 215	174	89. 1	84. 3	149. 2	
Arizona.....	979	684	295	68. 8	55. 1	162. 4	
Utah.....	548	530	18	33. 9	33. 3	65. 7	
Nevada.....	152	139	13	50. 2	49. 2	63. 4	
Pacific:							
Washington.....	1, 506	1, 397	109	33. 8	32. 2	93. 6	
Oregon.....	736	705	31	30. 5	29. 7	69. 7	
California.....	6, 177	5, 793	384	34. 5	34. 1	41. 9	

group as high as 48.1. As for the nonwhite infants, the variation is higher due in particular to the extremely high infant mortality in the Mountain division (123.4). More than 12 out of every 100 nonwhite babies died there before they reached their first anniversary. Apart from the Mountain, the variation in the other divisions is not too great for the nonwhite children either, the lowest rate occurring in the Pacific (48.7), the highest in West North Central (68.0). The race differential is below 2 in all divisions except West North Central and Mountain. The race differentials in the two southern divisions East and West South Central are surprisingly low, the ratio nonwhite to white being in both cases only 1.3. This is due to a relatively high infant mortality for the white and a relatively low infant mortality for the nonwhite group in the South.

In the individual States in 1944, the lowest rates for white infants (less than 32 deaths per 1,000 live births) are seen in Connecticut (30.1), New York (31.4), New Jersey (31.9), Illinois (31.2), Wisconsin (31.4), Minnesota (30.9), South Dakota (30.6), Montana (30.6), and lowest of all, Oregon (29.7). The highest infant mortality

rates for the whites (48 or more) are observed in West Virginia (51.2), Texas (49.2), Colorado (50.0), Arizona (55.1), Nevada (49.2), and, highest of all, New Mexico (84.3). For the nonwhite infants the rates are higher, as already noted in the divisions. But it must be kept in mind that chance fluctuation is necessarily high in States with a small nonwhite population. If we consider only those States which had at least 1,000 nonwhite births in 1944, the variation is within smaller limits. The lowest rates, then, (less than 50) are seen in Illinois (49.2), Mississippi (49.0), Arkansas (41.9), California (41.9). High rates (75 or more) based on at least 1,000 nonwhite births, occurred in Kentucky (75.8), New Mexico (149.2), Arizona (162.4), and Washington (93.6). More details may be obtained from table 10. However, some high rates such as in Delaware, North and South Dakota, Montana, Idaho, or low rates such as in Rhode Island, Iowa, Colorado, are not very valid since they are based on small numbers of nonwhite births. This is even more applicable in Vermont, New Hampshire, and Maine where the nonwhite births are minimal.

**TABLE 12—Number and percent of live births by person in attendance, by race; urban and rural: United States 1944 and 1943**

Area and race	Total births	Number attended by—			Percent attended by—			
		Physician		Non-medical person	Total	Physician		Non-medical person
		In hospital	In home			In hos- pital	In home	
1944								
Total United States.....	2, 794, 800	2, 112, 963	493, 463	188, 374	100. 0	75. 6	17. 7	6. 7
White.....	2, 454, 700	1, 987, 082	414, 895	52, 723	100. 0	81. 0	16. 9	2. 1
Nonwhite.....	340, 100	125, 881	78, 568	135, 651	100. 0	37. 0	23. 1	39. 9
Urban.....	1, 623, 564	1, 447, 008	137, 035	39, 521	100. 0	89. 1	8. 4	2. 4
Rural.....	1, 171, 236	665, 955	356, 428	148, 853	100. 0	56. 9	30. 4	12. 7
1943								
Total United States.....	2, 934, 860	2, 115, 582	615, 754	203, 524	100. 0	72. 1	21. 0	6. 9
White.....	2, 594, 763	2, 002, 313	534, 177	58, 273	100. 0	77. 2	20. 6	2. 2
Nonwhite.....	340, 097	113, 269	81, 577	145, 251	100. 0	33. 3	24. 0	42. 7
Urban.....	1, 714, 164	1, 490, 429	180, 718	43, 017	100. 0	86. 9	10. 5	2. 5
Rural.....	1, 220, 696	625, 153	435, 036	160, 507	100. 0	51. 2	35. 6	13. 1

# Attendance at Birth

It is appropriate to insert at the close a few words and figures about the kind of attendance at childbirth. There was not much change from 1943 to 1944 in the percentage of births that were attended by physicians (in hospitals and homes) or by nonmedical persons (midwives and other unspecified attendants). But there is a large difference in the proportions among white and nonwhite, and among urban and rural population. The statistics for the total United States, the absolute number and percent distribution of the persons in attendance, are shown in table 12 for 1944 and 1943.

In 1944, of the 2,794,800 registered live births, 2,112,963 or 75.6 percent were attended by physicians in hospitals and 493,463 or 17.7 percent by physicians in homes (or not in hospitals). Together more than 93 percent of all registered births were thus attended by physicians and the small remainder by midwives and other attendants. The total percentage of births attended by medical persons was practically the same as in the preceding year, although the proportion of births occurring in hospitals had somewhat increased while the proportion of births attended by physicians but not occurring in hospitals had correspondingly decreased. For the white population the proportion of births attended by physicians was still higher than for the total population, nearly 98 percent in both 1944 and 1943. For the nonwhite population the proportion was only 60 and 57 percent in 1944 and 1943, respectively, nearly 40 and 43 percent of the nonwhite births in the two years being attended by nonmedical persons, predominantly midwives. When all births are subdivided into urban and rural, the percentage of urban births attended by physicians is almost as high (close to 98 percent) as that for the total white population.

It is noteworthy that a higher proportion of the urban births occurred in hospitals (89 and 87 percent, respectively, in 1944 and 1943) and a smaller proportion of the urban births are left to physicians at home (8 and 11 percent, respectively, in 1944 and 1943) than for the total white population. The corresponding result for the rural population differs considerably. In 1944 only 57 percent of the births registered to rural residents occurred in hospitals, more than 30 percent were attended by physicians in homes, and almost 13 percent by nonmedical persons.

in the preceding year the proportion of rural births taking place in hospitals was appreciably smaller, being not much more than half of the total. (See table 12.)

Without going into more details regarding the geographic divisions and individual States, it should be mentioned that in some States practically 100 percent of the births, white and nonwhite, were attended by physicians; as in Connecticut, New Hampshire, and the District of Columbia. This result is more remarkable for the District of Columbia because of the large nonwhite population there. In addition to these States, practically all births of white infants were attended by physicians in Idaho, Iowa, and Nebraska. In the majority of the States the proportion of white births attended by physicians exceeded 99 percent; in only 7 States was it less than 95 percent. The results differ considerably for the births of nonwhite children in the individual States, the proportions of births attended by physicians ranging from practically 100 percent in the District of Columbia down to 27.3 percent in Mississippi. In the latter not even 7 percent of the nonwhite births took place in hospitals.<sup>6</sup>

<sup>1</sup> Effect of Changing Birth Rates upon Infant Mortality Rates, by Iwao M. Moriyama and Thomas N. E. Greville, Bureau of the Census: Vital Statistics-Special Reports, Vol. 19, No. 21, November 10, 1944. See further Bureau of the Census: United States Summary of Vital Statistics 1943 and 1944. Vital Statistics-Special Reports, Vol. 22, No. 1, February 28, 1945, and Vol. 24, No. 1, May 10, 1946.

<sup>2</sup> Completeness of Birth Registration in Urban and Rural Areas: United States and Each State, December 1, 1939, to March 31, 1940, by Dorothy D. Tuthill, Bureau of the Census: Vital Statistics-Special Reports, Vol. 23, No. 6, November 2, 1945.

<sup>3</sup> Estimated Completeness of Birth Registration: United States, 1935 to 1944, by Iwao M. Moriyama, National Office of Vital Statistics: Vital Statistics-Special Reports, Vol. 23, No. 10, September 30, 1946.

<sup>4</sup> Maternal Welfare and the Negro, by Philip F. Williams, Journal American Medical Association, Vol. 132, No. 11, November 16, 1946, pp. 611-614.

<sup>5</sup> Ten Years of Progress in Reducing Maternal and Infant Mortality, by Marjorie Gooch, The Child, November 1945, Vol. 10, pp. 77-83.

<sup>6</sup> For more details on individual States see the latest release of the Bureau of the Census. Births by Person in Attendance: United States, Each Division and State, 1944. Vital Statistics-Special Reports, Vol. 25, No. 3, April 5, 1946.

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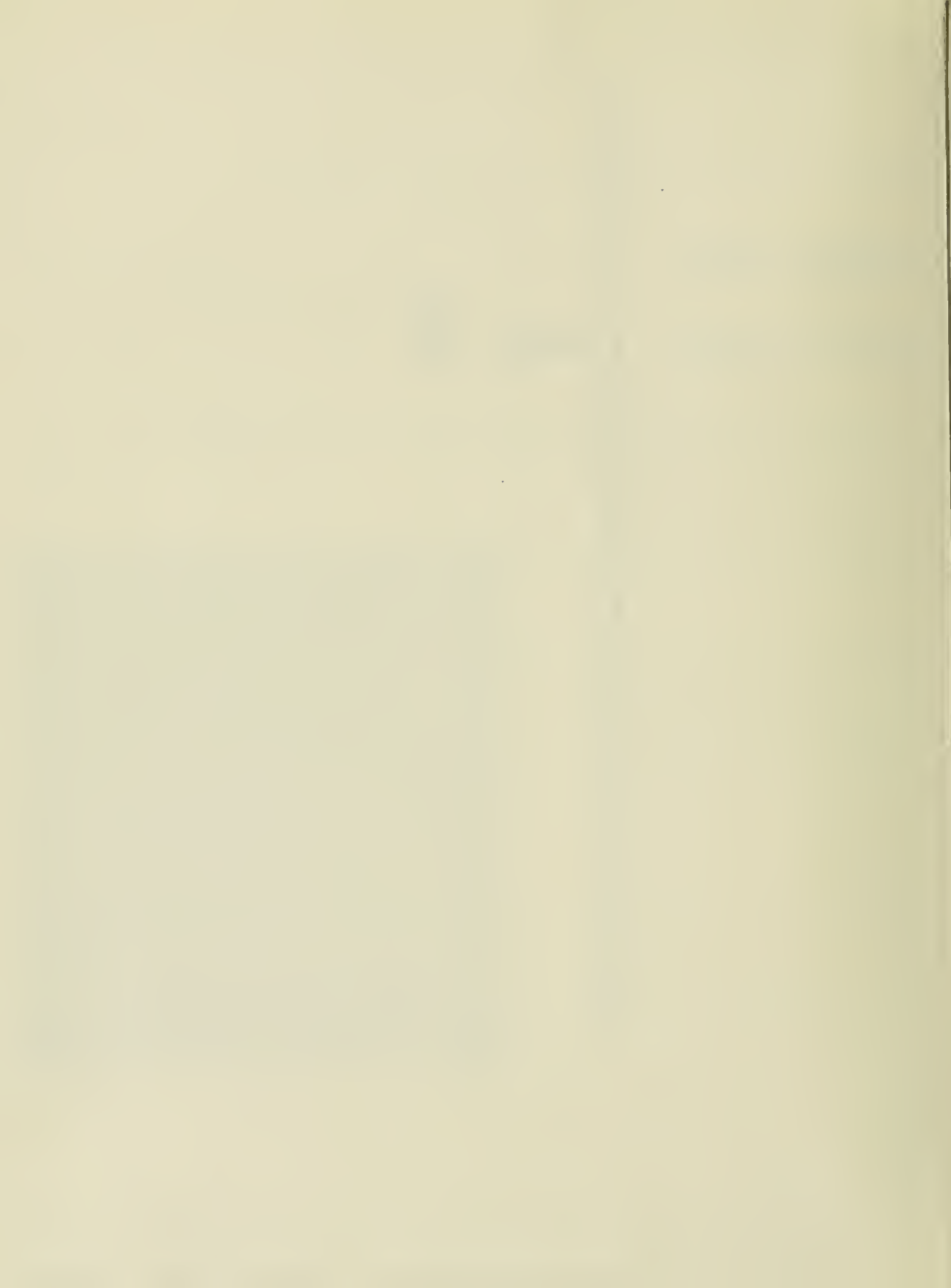
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CHILDREN'S BUREAU

STATISTICAL SERIES

NUMBER **2**

**DEATHS OF  
PREMATURE  
INFANTS  
in the  
UNITED STATES**



# DEATHS OF PREMATURE INFANTS IN THE UNITED STATES

Based on reports of the United States Bureau of the Census.

ETHEL C. DUNHAM, M. D.

## Deaths among premature infants

THE STATISTICS of the Bureau of the Census relating specifically to premature infants show the deaths attributed to "premature birth," though deaths from other causes, among which are congenital malformation and birth injury, also include some premature infants. "Premature birth" takes a higher toll of infant life than any other condition, and is one of the ten leading causes of death among the general population of the United States. In 1944 premature birth was given on the death certificate as the cause of death of 33,120 infants, of whom almost all (32,065), as would be expected, died during the first month of life. Deaths attributed to premature birth accounted for nearly one-third (30 percent) of all deaths during the first year of life and for almost half (47 percent) of those in the first month (tables 1 and 2). Many of the infants who died were doubtless too immature for survival and their deaths were actually due to the fact that they were born too soon. Others, mature enough to survive, probably died from some undiagnosed condition or did not receive proper care.

To save these infants we must make increased efforts to prevent premature birth; get more detailed information on deaths now assigned to premature birth alone; spread knowledge of and facilities for the special care known to be needed by premature infants; and broaden through research the scope of knowledge in regard to problems of prematurity.

Deaths assigned to premature birth, as stated above, do not represent the entire loss of life associated with prematurity. All the other prenatal and natal causes (listed in table 1) may include some deaths of premature infants. In 1944 prenatal and natal causes were responsible for 67,713 (61 percent) of the deaths in the first

year of life (111,127) and for 59,349 (86 percent) of the deaths in the first month (68,996). Premature birth stood first in the prenatal and natal group, causing half of the deaths in that group in the first year and more than half in the first month. Congenital malformations and injury at birth, to which premature infants are peculiarly liable, together accounted for 22 percent of the total deaths in the first year and 28 percent of those in the first month. The number of deaths of premature infants in the cause group entitled "Other diseases peculiar to the first year of life" (asphyxia, nonsyphilitic infections, hemorrhagic disease, icterus gravis, and so forth) is limited by the fact that if premature birth is also mentioned on the death certificate it takes statistical

Table 1.—Deaths in first year of life, by cause: Number of deaths, percentage distribution, and death rates; United States, 1944<sup>1</sup>

Cause of death	Deaths in the first year of life		
	Number	Percent distribution	Number per 1,000 live births
All causes.....	111,127	100.0	39.8
Prenatal and natal causes.....	67,713	60.9	24.2
Premature birth.....	33,120	29.8	11.8
Congenital malformations.....	14,205	12.8	5.1
Injury at birth.....	10,199	9.2	3.6
Congenital debility.....	2,493	2.2	0.9
Other diseases peculiar to the first year of life.....	6,950	6.2	2.5
Syphilis.....	746	0.7	0.3
Influenza and pneumonia.....	15,674	14.1	5.6
Dysentery, diarrhea and enteritis.....	10,230	9.2	3.7
Epidemic and other communicable diseases.....	2,749	2.5	1.0
All other specified causes.....	10,340	9.3	3.7
Ill-defined and unknown causes.....	4,421	4.0	1.6

<sup>1</sup> Based on data from U. S. Bureau of the Census. Data are for continental United States.

**Table 2.—Deaths in first month of life, by cause: Number of deaths, percentage distribution, and death rates; United States, 1944<sup>1</sup>**

Cause of death	Deaths in the first month of life		
	Number	Percent distribution	Number per 1,000 live births
All causes .....	68,996	100.0	24.7
Prenatal and natal causes .....	59,349	86.0	21.3
Premature birth .....	32,065	46.5	11.5
Congenital malformations .....	9,195	13.3	3.3
Injury at birth .....	9,985	14.5	3.6
Congenital debility .....	1,303	1.9	0.5
Other diseases peculiar to the first year of life <sup>2</sup> .....	6,445	9.3	2.3
Syphilis .....	356	0.5	0.1
Influenza and pneumonia .....	2,902	4.2	1.0
Dysentery, diarrhea and enteritis .....	1,582	2.3	0.6
All other specified causes .....	2,594	3.8	0.9
Ill-defined and unknown causes .....	2,569	3.7	0.9

<sup>1</sup> Based on data from U. S. Bureau of the Census. Data are for continental United States.

<sup>2</sup> That occurred in the first month.

precedence over these diseases. The causes of death other than those grouped as prenatal and natal—influenza and pneumonia, and dysentery, diarrhea and enteritis—would also include some deaths of premature infants at more than 2 weeks of age. (If premature infants die of any of these causes in the first 2 weeks of life their deaths are assigned to “premature birth”.)

It is obviously impossible from the census figures to assess the total loss of infant life associated with prematurity, but studies of deaths of premature infants have demonstrated that the loss from the sources discussed, especially congenital malformations and birth injuries, would add considerably to the already high figures for “premature birth” alone.

### Decrease in mortality from premature birth

That some progress has been made through the widespread recognition and study of the problem of prematurity in recent years is shown by the decrease from 1935 to 1944 in the neonatal mortality rate from premature birth (table 3). This rate showed a gradual decline from 14.9 deaths per 1,000 live births in 1935 to 11.5 in 1944, and the decline has been especially marked

**Table 3.—Deaths in first month of life from all causes and from premature birth; United States, 1935-44<sup>1</sup>**

Year	Deaths per 1,000 live births		Percent change	
	All causes	Premature birth	All causes	Premature birth
1935 .....	32.4	14.9	.....	.....
1936 .....	32.6	15.1	+0.6	+1.3
1937 .....	31.3	14.8	-4.0	-2.0
1938 .....	29.6	13.8	-5.4	-6.8
1939 .....	29.3	13.8	-1.0	0.0
1940 .....	28.8	13.3	-1.7	-3.6
1941 .....	27.7	12.8	-3.8	-3.8
1942 .....	25.7	11.9	-7.2	-7.0
1943 .....	24.7	11.4	-3.9	-4.2
1944 .....	24.7	11.5	0.0	+0.9

<sup>1</sup> Based on data from U. S. Bureau of the Census. Data are for continental United States.

since 1937. During the 10-year period the decrease in the neonatal mortality rate from premature birth was 23 percent, compared with 24 percent in neonatal mortality from all causes and 29 percent in total infant mortality.

The neonatal mortality rate from premature birth among Negro infants is higher than among white infants, and this relationship has been maintained consistently in the period 1935-44, the rate for Negro infants in 1944 (14.6) being the same as the rate for white infants in 1935 (table 4). (The rates are for infants of non-white races. Since Negro infants comprise not less than 95 percent of these, the term Negro is used in this report for the entire group.) The

**Table 4.—Deaths in first month of life from premature birth, by race; United States, 1935-44<sup>1</sup>**

Year	Number of births		Deaths in first month of life from premature birth		Rate of deaths in first month of life from premature birth	
	White	Non-white	White	Non-white	White	Non-white
1935 .....	1,888,012	267,093	27,513	4,508	14.6	16.9
1936 .....	1,881,883	262,907	27,786	4,666	14.8	17.7
1937 .....	1,928,437	274,900	27,635	4,889	14.3	17.8
1938 .....	2,005,955	281,007	26,905	4,677	13.4	16.6
1939 .....	1,982,671	282,917	26,491	4,769	13.4	16.9
1940 .....	2,067,953	292,446	26,620	4,817	12.9	16.5
1941 .....	2,204,903	308,524	27,034	5,244	12.3	17.0
1942 .....	2,486,934	322,062	28,588	4,895	11.5	15.2
1943 .....	2,594,763	340,097	28,670	4,843	11.0	14.2
1944 .....	2,454,700	340,100	27,109	4,956	11.0	14.6

<sup>1</sup> Based on data from U. S. Bureau of the Census. Data are for continental United States.

neonatal mortality rate for Negro infants fluctuated irregularly from 1935 to 1941, when the rate was about the same as at the beginning of the period; but from 1941 to 1944 it dropped 14 percent, compared with 11 percent for white infants. (The rate for Negro infants rose slightly in 1944 while the rate for white infants was the same as in 1943.) The 14-percent decrease from 1941 to 1944 thus represents the entire decrease for Negro infants over the 10-year period 1935-44; for white infants the 10-year decrease was 25 percent.

Age at death

Almost all the deaths attributed to premature birth in 1944 (97 percent) occurred in the first month of life. The first day was the most critical period, with 57 percent of the deaths occurring then; 30 percent occurred from the second

Table 5.—Deaths from premature birth, by age; United States, 1944<sup>1</sup>

Age at death	Infants that died from premature birth		
	Number	Pereent	Number per 1,000 live births
Total.....	33,120	100.0	11.8
Under 1 day.....	18,909	57.1	6.7
1 day to under 1 week.....	9,750	29.4	3.5
1 week to under 1 month.....	3,406	10.3	1.2
1 month to under 1 year.....	1,055	3.2	0.4

<sup>1</sup> Based on data from U. S. Bureau of the Census. Data are for continental United States.

to the seventh day; and 10 percent, from the second week to the end of the first month (table 5).

Variations among the States

The States vary widely in rates for neonatal mortality from premature birth (table 6). They also vary widely in the degree of completeness with which they report births, and these differences obviously affect the comparability of their reported rates of death. Before a State is admitted to the United States birth-registration

area a test by the United States Bureau of Census must show that at least 90 percent of its births are reported. All the States had been admitted to the area by 1933. In 1940, however, the Bureau of the Census tested the completeness of birth registration throughout the country and found that 13 States had fallen below this standard since their admission; 12 States on the other hand, were found to be registering 98 percent or more of the births<sup>1</sup>.

Among the 35 States and the District of Columbia whose birth registration met the 1940 test of 90-percent completeness the lowest rates for neonatal mortality from premature birth in 1944 were those of Mississippi (8.9), Illinois (9.2), and Kansas (9.3). The highest rates were those of Nevada (17.5) and the District of Columbia (17.6). Both Nevada and the District of Columbia had higher rates in 1944 than in 1943, as had 15 other States in the satisfactory birth-registration group, while the States with the lowest rates, Mississippi, Illinois, and Kansas, and 15 other States showed some decline. One State was stationary. For the country as a whole the rate in 1944 was 11.5, compared with 11.4 in the preceding year, 1943. The 1943 figure showed a decline from that for 1942 (11.9). In the face of wartime shortages of medical and nursing services, 1944 practically maintained the 1943 level.

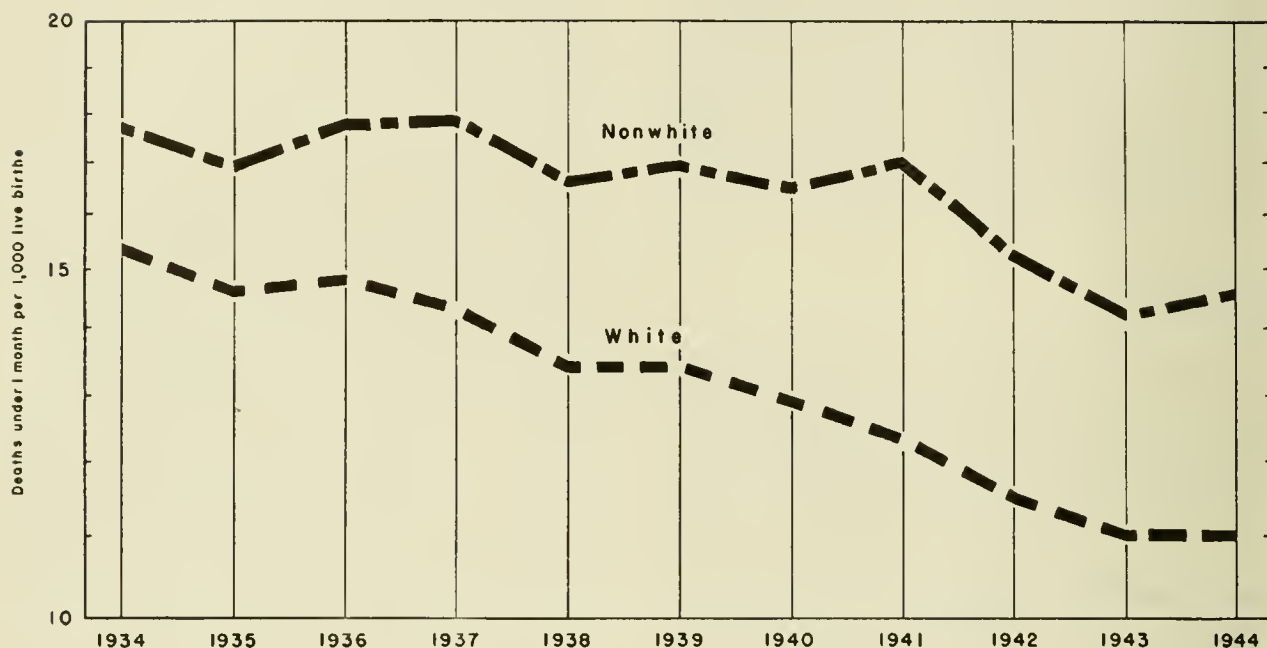
Nineteen forty-three was the first year in which any State with satisfactory birth registration had a rate less than 9.0 for neonatal mortality from premature birth (Oregon 8.2, and Connecticut 8.7), and Mississippi was the only one of these States below 9.0 in 1944. But in 1944, of the 36 States with satisfactory birth registration, 10 States (Connecticut, Illinois, Indiana, Kansas, Mississippi, Montana, Oregon, South Dakota, Washington, and Wisconsin) had a rate of 10.0 or less, as against 9 States in 1943 and only 4 States in 1942. All the States with these low rates in 1944 stood 95 percent or high-

<sup>1</sup>Bureau of the Census, Department of Commerce: Vital Statistics of the United States, 1940. Part I, p. 5, Table D. Washington, 1943.

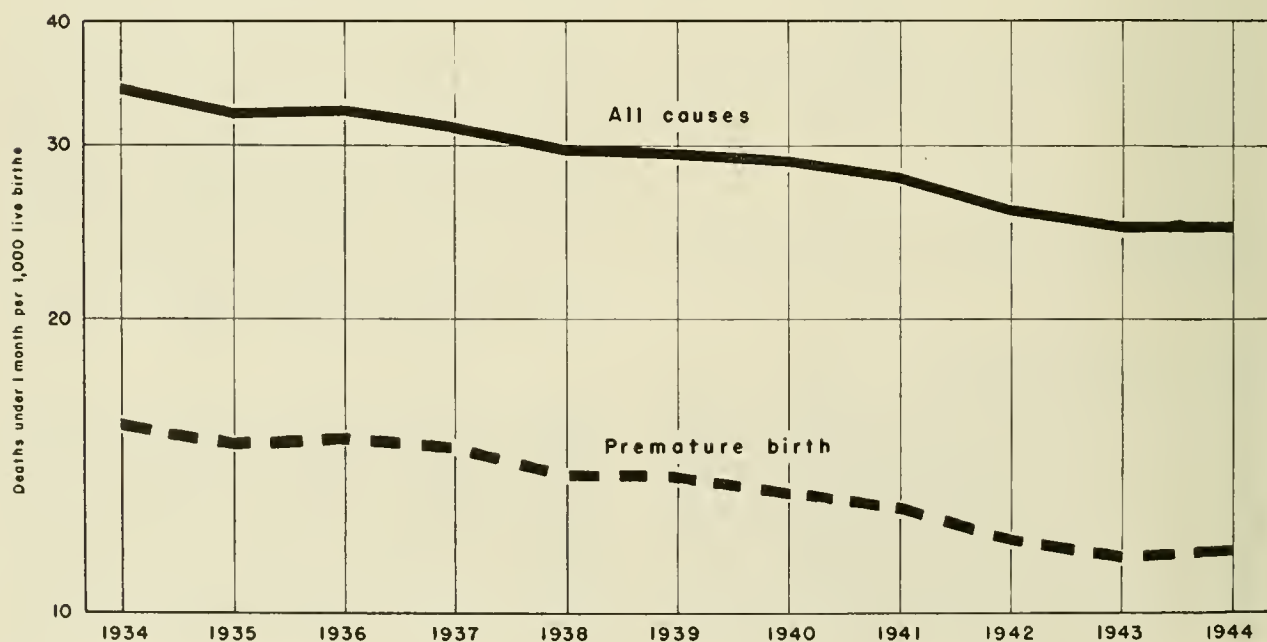
Lenhart, Robert F.: Completeness of Birth Registration in the United States in 1940. Am. J. Pub. Health 33:685-690, June 1943.

Whelpton, P. K.: The Completeness of Birth Registration in the United States. J. Am. Stat. Assn. 29:125-136, June 1934.

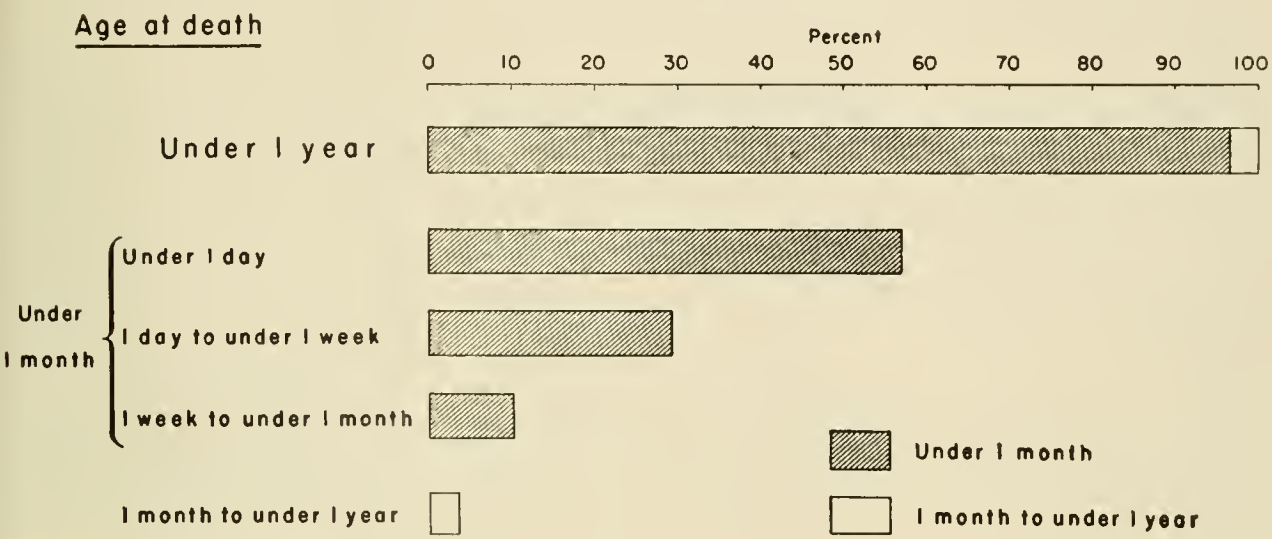
# DEATHS IN FIRST MONTH OF LIFE FROM PREMATURE BIRTH, BY RACE, UNITED STATES, 1934-44



## DEATHS IN FIRST MONTH OF LIFE FROM ALL CAUSES AND FROM PREMATURE BIRTH, UNITED STATES, 1934-44



# DEATHS FROM PREMATURE BIRTH, BY AGE, UNITED STATES, 1944



# DEATHS IN FIRST MONTH OF LIFE, BY CAUSE, UNITED STATES, 1944

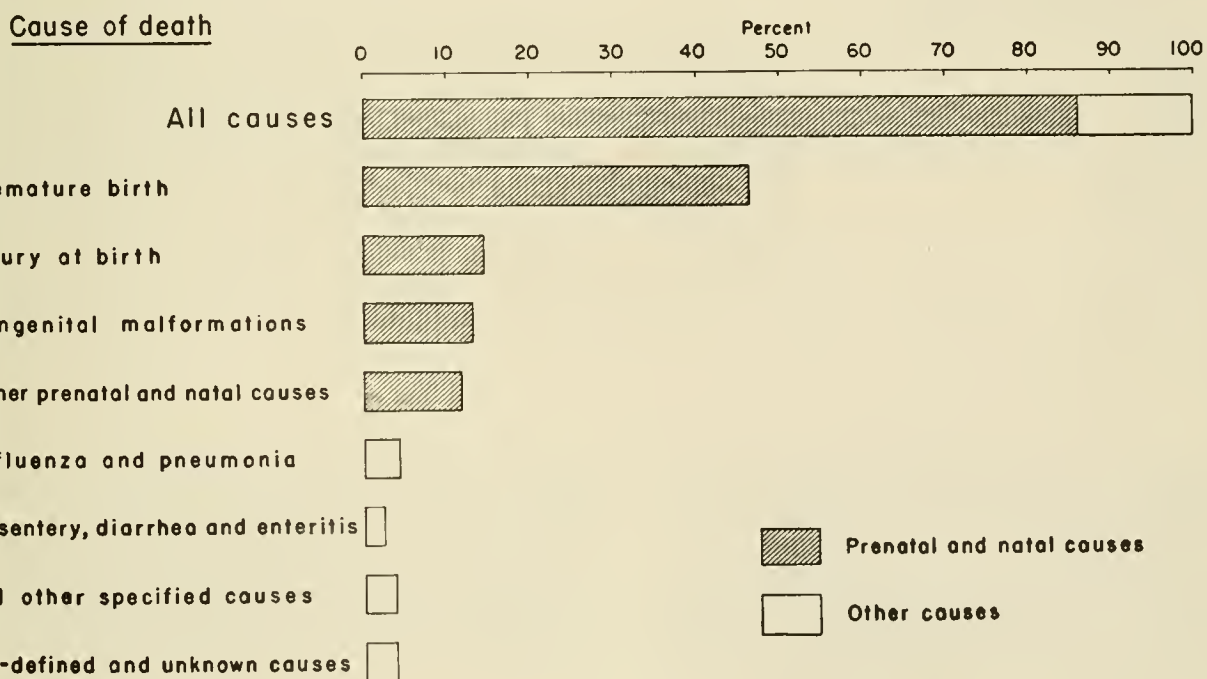


Table 6.—Deaths in first month of life from premature birth for continental United States and for each State; 1935-44.

State	Deaths under 1 month from premature birth per 1,000 live births									
	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Continental United States.....	14.9	15.1	14.8	13.8	13.8	13.3	12.8	11.9	11.4	11.5
<i>States with birth registration 90 percent complete in 1939-40</i>										
California.....	14.8	15.1	15.3	13.2	13.4	12.6	12.8	11.0	10.9	11.6
Colorado.....	19.0	17.4	18.2	15.9	14.9	17.8	13.8	13.2	13.4	12.8
Connecticut.....	12.7	13.0	14.2	11.8	12.0	11.2	9.3	9.4	8.7	9.6
Delaware.....	13.4	14.3	17.2	13.1	10.7	14.1	11.9	12.9	14.1	13.8
Dist. of Columbia.....	22.2	23.7	22.6	17.7	18.0	17.6	15.0	15.4	15.5	17.6
Florida.....	16.8	17.0	17.8	18.0	16.1	15.7	15.4	13.8	13.9	14.4
Idaho.....	14.5	14.5	12.9	13.3	14.2	13.1	11.4	11.2	10.7	10.6
Illinois.....	13.9	12.9	12.4	11.8	11.2	11.3	10.6	10.8	10.2	9.2
Indiana.....	14.3	14.9	14.4	12.6	11.6	11.9	10.8	10.9	10.2	9.8
Iowa.....	13.8	14.7	13.7	12.8	12.5	12.3	11.9	11.3	11.1	11.0
Kansas.....	13.2	14.7	13.7	13.6	13.3	11.5	11.8	11.3	9.5	9.3
Maine.....	18.4	19.6	20.3	17.5	18.1	16.7	13.1	11.3	11.6	11.8
Maryland.....	16.6	15.2	17.1	15.4	13.9	14.8	15.2	12.6	11.8	12.7
Massachusetts.....	13.6	15.1	13.2	13.1	11.3	11.6	11.0	11.0	10.0	10.4
Michigan.....	15.1	14.8	14.5	14.4	13.8	12.4	12.2	12.2	11.7	12.2
Minnesota.....	14.9	14.5	13.0	13.0	12.4	11.7	11.8	10.8	10.8	10.4
Mississippi.....	9.9	10.4	11.7	11.1	10.5	11.1	12.2	10.3	10.0	8.9
Missouri.....	15.1	16.0	15.6	13.3	13.2	12.7	12.7	12.1	11.1	11.0
Montana.....	16.2	14.6	13.7	13.3	15.0	15.8	10.8	10.6	11.9	10.0
Nebraska.....	13.0	12.9	13.2	11.8	11.8	12.1	12.2	10.7	12.3	10.8
Nevada.....	26.7	17.6	12.6	11.7	14.4	18.0	13.3	13.3	15.5	17.5
New Hampshire.....	18.4	14.2	14.7	15.6	14.5	10.7	11.4	11.6	13.2	11.0
New Jersey.....	13.7	13.8	11.5	11.4	12.9	11.7	12.3	10.4	10.7	10.9
New York.....	13.6	13.4	13.1	12.5	12.0	11.6	10.7	10.6	10.7	10.4
North Dakota.....	14.4	12.9	14.6	16.3	14.2	15.0	11.4	12.9	12.1	11.7
Ohio.....	15.6	15.7	15.0	13.2	13.1	13.2	13.2	12.0	11.8	12.0
Oregon.....	13.4	12.7	12.7	12.7	10.9	10.6	9.4	9.0	8.2	9.8
Pennsylvania.....	14.4	15.3	14.9	13.4	14.2	13.7	12.6	12.1	11.4	11.8
Rhode Island.....	13.1	13.1	12.9	14.0	11.7	10.7	9.6	10.4	10.5	10.3
South Dakota.....	13.2	12.1	14.9	12.3	12.9	12.0	12.4	11.5	9.4	9.4
Utah.....	17.3	17.6	14.3	15.4	14.8	13.9	11.5	12.0	9.6	11.1
Vermont.....	17.1	18.3	16.4	14.6	13.5	15.8	14.6	13.2	9.4	12.6
Virginia.....	18.5	19.6	18.7	17.5	18.0	17.0	16.7	14.5	13.6	13.7
Washington.....	13.5	14.2	11.8	11.9	11.2	10.4	11.6	9.7	9.8	10.0
Wisconsin.....	14.4	13.7	13.7	12.8	14.1	11.8	10.6	10.0	10.8	10.0
Wyoming.....	16.7	17.5	15.0	16.6	17.2	13.5	13.5	17.1	11.3	10.8
<i>States with birth registration below 90 percent in 1939-40</i>										
Alabama.....	15.9	17.6	16.4	14.6	16.3	15.8	15.2	12.9	10.2	11.7
Arizona.....	16.5	17.9	17.5	15.6	17.0	14.5	14.8	15.2	13.1	12.7
Arkansas.....	10.1	10.3	11.7	10.6	11.1	9.1	10.2	9.3	7.6	8.3
Georgia.....	17.0	17.7	16.1	15.6	15.7	14.8	15.1	14.1	13.1	12.7
Kentucky.....	15.0	16.3	15.3	16.5	16.3	15.4	14.3	12.9	12.6	11.9
Louisiana.....	16.9	17.6	16.9	18.2	15.9	16.8	17.0	12.8	12.5	14.0
New Mexico.....	13.5	14.2	15.5	13.0	16.0	14.7	14.0	15.4	15.4	15.5
North Carolina.....	18.3	17.3	18.3	17.2	16.7	15.8	14.5	13.7	12.5	11.8
Oklahoma.....	13.7	14.9	15.2	13.5	15.0	15.4	15.3	12.0	13.5	12.9
South Carolina.....	13.6	15.6	15.1	15.1	15.8	14.2	14.9	14.4	13.4	14.0
Tennessee.....	13.8	13.8	13.9	12.9	13.7	12.4	11.9	11.9	11.2	11.7
Texas.....	16.1	16.2	15.7	14.2	15.4	15.5	15.4	14.1	13.1	12.3
West Virginia.....	16.3	16.9	16.5	15.1	15.0	15.0	15.2	15.6	14.3	13.8

Source: U. S. Bureau of the Census.

er in completeness of birth registration except Mississippi, for which the percentage of completeness was 90.

Since the rates in some States are based on small numbers, and there is considerable fluctuation from year to year, the trend is seen more readily if the rates are calculated on the basis of

all the births and deaths during 3-year periods. Table 7 shows, for 3-year periods, for the 12 States whose birth-registration in 1940 was at least 98 percent complete, the infant mortality rates, the neonatal mortality rates, and the percentage decreases in the rates from 1933-35 to 1942-44.

**Table 7.—Deaths in first year of life and deaths from premature birth in first month of life in the 11 States and the District of Columbia with birth registration 98 percent complete in 1940: Deaths per 1,000 live births, 1933-35 to 1942-44.**

State	Rate of deaths in first year of life					Rate of deaths in first month of life from premature birth				
	By place of occurrence			By place of residence 1942-44	Percent decrease from 1933-35 to 1942-44	By place of occurrence			By place of residence 1942-44	Percent decrease from 1933-35 to 1942-44
	1933-35	1936-38	1939-41			1933-35	1936-38	1939-41		
California.....	51.6	49.9	39.3	34.6	32.9	15.1	14.5	12.9	11.2	25.8
Connecticut.....	46.7	39.5	33.5	29.9	36.0	13.8	13.0	10.8	9.3	32.6
District of Columbia.....	63.9	60.0	48.6	47.7	25.4	23.0	21.2	16.8	16.2	29.6
Massachusetts.....	49.7	43.5	36.6	33.1	33.4	14.3	13.8	11.3	10.5	26.6
Michigan.....	50.0	47.6	40.4	37.8	24.4	15.8	14.6	12.8	12.0	24.1
Minnesota.....	46.5	41.3	34.5	30.6	34.2	15.3	13.5	12.0	10.6	30.7
Montana.....	55.1	51.0	44.1	36.1	34.5	15.7	13.9	13.8	10.8	31.2
New Hampshire.....	56.9	47.3	40.6	40.0	29.7	17.6	14.8	12.2	12.3	30.1
New Jersey.....	47.2	41.1	36.8	32.9	30.3	14.0	12.2	12.3	10.6	24.3
New York.....	51.2	44.2	36.4	32.5	36.5	14.4	13.0	11.4	10.6	26.4
Rhode Island.....	52.2	46.5	37.8	39.5	24.3	15.0	13.3	10.6	10.4	30.7
Washington.....	42.5	41.2	35.8	34.0	20.0	12.8	12.6	11.1	9.8	23.4

Source: U. S. Bureau of the Census.

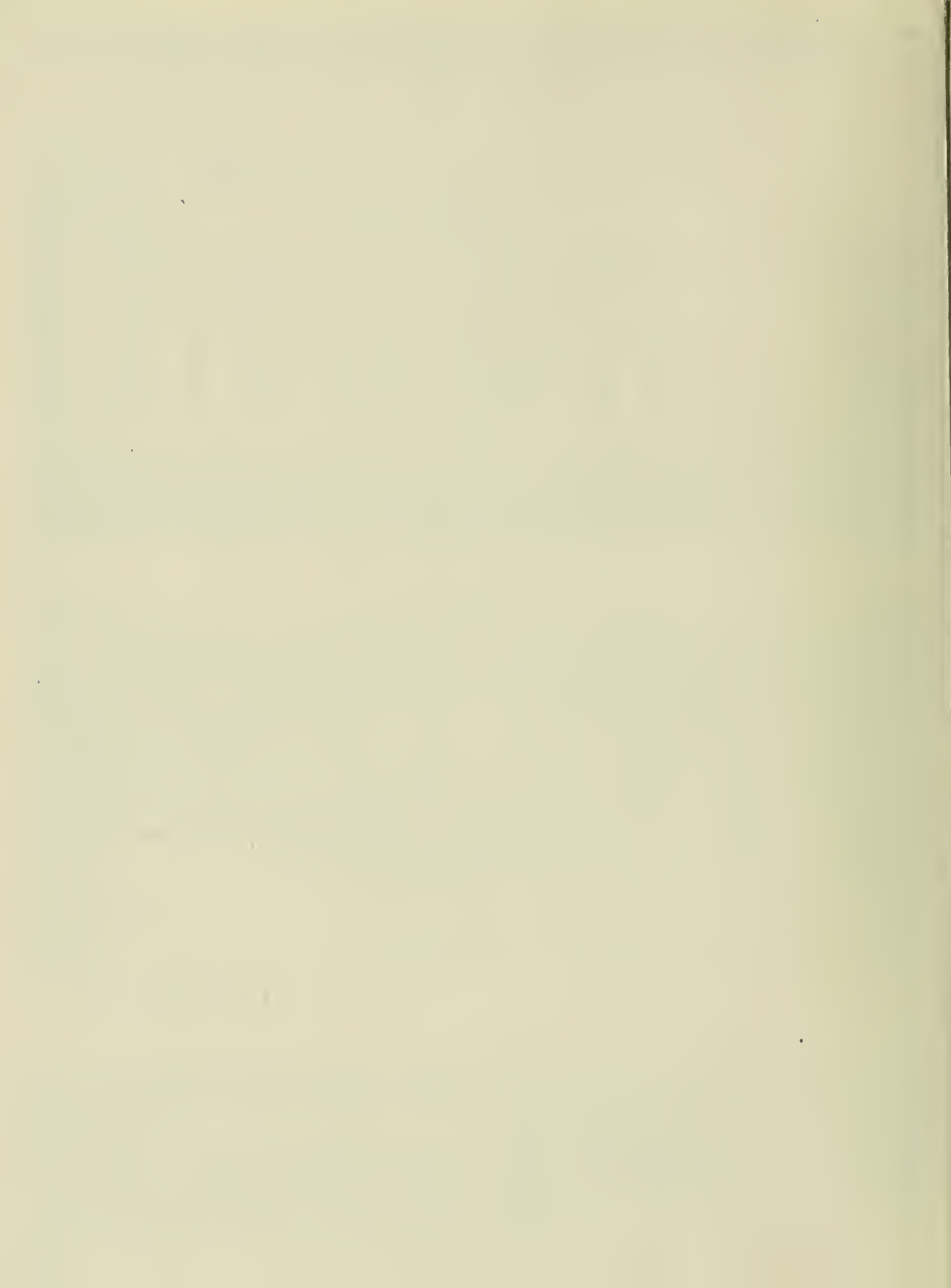
<sup>1</sup> Figures for 1939 and 1940 are by place of occurrence; figures for 1941 are by place of residence because they are not available by place of occurrence. Through 1938 practically all vital statistics were tabulated by the Bureau of the Census according to place of occurrence. However, the need and importance of residence statistics were keenly felt by all persons interested in vital statistics. Consequently, the staff of the Bureau decided to change to residence tabulations, though they realized that all statistics by States prior to and including 1938 would not be entirely comparable to those compiled for years following 1938. For the years 1939 and 1940 as many tabulations as possible were made by both occurrence and residence, but starting with 1941, nearly all information is given only on a residence basis. When rates by occurrence and by residence for the 11 States and the District of Columbia included in the table were compared for the years for which both were available, little difference was found except in the District of Columbia.

For 11 of the 12 States, infant mortality rates lower than that for continental United States (40.2) were reported in 1942-44, but the District of Columbia rate was higher (47.7). In neonatal mortality rates from premature birth, 9 of the 12 were below the national rate (11.6). The exceptions were the District of Columbia (16.2), Michigan (12.0), and New Hampshire (12.3).

The infant mortality rate for continental United States declined from 58.0 in 1933-35 to

40.2 in 1942-44; the rate for neonatal mortality from premature birth, from 15.2 to 11.6.

For infant mortality the decrease in rates from 1933-35 to 1942-44 varied from 20.0 percent for Washington to 36.5 percent for New York; for neonatal mortality from premature birth the decrease varied from 23.4 percent for Washington to 32.6 percent for Connecticut. Connecticut thus had both the lowest rate in this group in 1942-44 and the greatest relative decrease from 1933-35.



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**U. S.**

**CHILDREN'S BUREAU**

**STATISTICAL SERIES**

**NUMBER**

**3**

**CHILDREN SERVED  
BY PUBLIC  
WELFARE AGENCIES  
AND INSTITUTIONS  
1945**

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U. S. SUPERINTENDENT OF DOCUMENTS

OCT 30 1947

## **CHILDREN SERVED BY PUBLIC WELFARE AGENCIES AND INSTITUTIONS, 1945**

**Children Served in Public Child Welfare Programs, December 31, 1945** is a summary and analysis of data, on the characteristics of children receiving child-welfare services from State and local public welfare agencies, that are reported annually to the U. S. Children's Bureau. It is the second analysis to be issued on the basis of the reports submitted by State public welfare agencies. The first analysis was issued by the Children's Bureau in mimeographed form in May 1946, as "Characteristics of Children Receiving Service From Public Welfare Agencies, January 1, 1945." A few copies of that first report are available for distribution.

**Children Served by Public Institutions, December 31, 1945** is the first summary and analysis of annual reports received by the U. S. Children's Bureau on children served by State and local public institutions for dependent and neglected children or for delinquent children. It includes both children living in the institutions and children served outside the institutions by institutional staffs.

Except for the children living in these institutions who are receiving casework service from public welfare department staffs and who therefore are included in both the following analyses, this issue of the Children's Bureau Statistical Series presents two separate but closely related aspects of services for children under public auspices. Information on other services provided for children under public and private auspices will become available as reporting procedures are developed within the Children's Bureau comprehensive child-welfare reporting plan.

# CHILDREN SERVED IN PUBLIC CHILD WELFARE PROGRAMS, DECEMBER 31, 1945

*Report prepared by JACK WIENER  
Social Statistics Section, Division of Statistical Research*

THIS REPORT on the characteristics of children receiving service in State and local public child-welfare programs on December 31, 1945, is based on annual reports from 45 State agencies (the District of Columbia, Alaska, Hawaii, and Puerto Rico are counted as States). Reports from 32 States were "substantially complete," that is, they covered 90 percent or more of the children receiving service in those States. Reports from 13 States were "incomplete"—covered less than 90 percent of the children served.

This summary comprises a brief analysis of the information, and a series of eight tables. The analysis is limited to data from the 32 States whose reports were substantially complete. In five of the tables (tables 1, 2, 3, 6, and 7) data are included from the 13 States that reported incompletely.

A report similar to this one was issued, in mimeographed form, in May 1946 on the characteristics of children receiving service on January 1, 1945.

## Number of children

In the 32 States reporting completely, more than 120,000 children were receiving service in State and local public child-welfare programs on December 31, 1945. In these States, representing all regions of the country, 4.5 children were receiving service out of every 1,000 children (under 21 years of age) in the population according to the 1940 census. The 120,000 children receiving service in these 32 States constituted more than half of the children estimated to be receiving service in all the States and Territories.

More children were reported as receiving child-welfare services at the end of 1945 than at the end of 1944. For 30 States that submitted substantially complete data for both years, the over-all increase was 2 percent; 17 States reported increases, 13 States decreases. The changes in individual States ranged from a 54-percent increase in Puerto Rico to a 31-percent decrease in Wyoming—*table 1*. For the most part, changes in the figures reported represent real changes in the number of children served; in a few States, however, changes in the figures are the result to some extent of improvements in reporting coverage (beyond the 90-percent standard required for classification of State reports as "substantially complete"), of refinements in reporting procedures, or of administrative changes in organization and reporting.

The unequal distribution, over the country, of public services to children is shown by *table 1*, which gives the number of children served for each 1,000 children in the populations of individual States. The range is from 18.1 per 1,000 children in Minnesota to 0.9 per 1,000 in Tennessee. Of the 10 States reporting the lowest ratios, 6 are in the South, where frequently other services provided for children—by public institutions, by juvenile courts, and by private agencies and institutions—are likewise inadequate.

Further indication of the unequal distribution of services is found in the concentration of the children receiving service. More than half the children reported were in 6 States (Alabama, Indiana, Minnesota, New Jersey, Puerto Rico, and West Virginia) which contained only about one-fourth of the 1940 child population of the 32 States reporting. It is apparent that where a child lives, rather than what he needs, may determine whether he receives service.

## Race

In the 32 States, 83 percent of the children receiving service were white, 14 percent were Negro, and 3 percent were of "other races." For these States combined, the number (4.4) of white chil-

**TABLE 1.—Number of children receiving service in public child-welfare programs on December 31, 1945, rate per 1,000 children in the population, and percent change from 1944; 45 States**

State	Children served on December 31, 1945		Percent change from December 31, 1944
	Number	Rate per 1,000 child population <sup>1</sup>	
Total, 45 States .....	132,202	( <sup>2</sup> )	( <sup>2</sup> )
States reporting completely:			
Total .....	120,372	4.5	( <sup>2</sup> )
Alabama .....	6,765	5.3	—1
Alaska .....	391	14.3	+18
Arizona .....	1,751	8.3	—12
Arkansas .....	1,126	1.3	—26
Colorado .....	1,487	3.6	( <sup>3</sup> )
Delaware .....	665	7.5	+21
District of Columbia .....	2,555	14.3	—16
Florida .....	1,446	2.1	+20
Hawaii .....	1,502	7.9	—10
Illinois .....	2,582	1.0	+6
Indiana .....	16,115	13.5	+1
Kentucky .....	3,083	2.5	+10
Maine .....	3,175	10.1	+10
Minnesota .....	17,972	18.1	+1
Mississippi .....	1,015	1.0	+3
Missouri .....	3,304	2.6	( <sup>3</sup> )
Montana .....	1,218	6.0	+5
Nebraska .....	2,281	4.8	—15
Nevada .....	460	13.2	+22
New Hampshire .....	2,292	13.8	+5
New Jersey .....	11,389	8.6	—2
North Carolina .....	5,819	3.5	+28
North Dakota .....	1,222	4.5	( <sup>4</sup> )
Ohio .....	4,743	2.0	—7
Oklahoma .....	1,388	1.4	—11
Puerto Rico .....	6,393	6.3	+54
South Carolina .....	3,153	3.5	+15
Tennessee .....	1,137	.9	—4
Texas .....	3,264	1.3	+14
Washington .....	4,193	7.7	—1
West Virginia .....	6,328	7.6	—8
Wyoming .....	158	1.7	—31
States reporting incompletely:			
Total .....	11,830	( <sup>2</sup> )	( <sup>2</sup> )
California .....	685	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut .....	325	( <sup>2</sup> )	( <sup>2</sup> )
Georgia .....	1,104	( <sup>2</sup> )	( <sup>2</sup> )
Idaho .....	244	( <sup>2</sup> )	( <sup>2</sup> )
Iowa .....	1,628	( <sup>2</sup> )	( <sup>2</sup> )
Kansas .....	1,178	( <sup>2</sup> )	( <sup>2</sup> )
Louisiana .....	1,435	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts .....	453	( <sup>2</sup> )	( <sup>2</sup> )
Michigan .....	1,677	( <sup>2</sup> )	( <sup>2</sup> )
New Mexico .....	850	( <sup>2</sup> )	( <sup>2</sup> )
Oregon .....	856	( <sup>2</sup> )	( <sup>2</sup> )
South Dakota .....	632	( <sup>2</sup> )	( <sup>2</sup> )
Utah .....	733	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> Population under 21 years of age, 1940 Census.

<sup>2</sup> Percent or rate not computed because of incomplete reports.

<sup>3</sup> Reports incomplete for December 31, 1944.

<sup>4</sup> Less than 0.5 percent.

dren served per 1,000 white children in the population was about the same as the number (4.3) of Negro children served per 1,000 Negro children, while the rate for children of "other races" (10.8 per 1,000) was more than twice that for whites or Negroes. The rates for white and Negro children were not appreciably different from those of the preceding year; the rate for children of "other races" was almost double that for 1944, but the increase was primarily the result of a large increase in the number of children in that group reported by Hawaii.

Considerable variation is evident in the extent to which the various States are providing services to nonwhite children—table 2. From this variation it is apparent that the probability of a child's receiving service not only depends considerably on where he lives, but also is affected in some parts of the country by his race. In the North the rate of service for Negro children is more than three times that for white children; in the South it is only two-thirds that for white children, as is shown by the following rates of children receiving service per 1,000 child population in these two racial classifications:

	White	Negro
Rate for 32 states.....	4.4	4.3
Rate for Northern States.....	5.5	17.1
Rate for Southern States.....	2.8	1.9
Rate for Western States.....	6.1	16.3

In the South, the inadequacy of provisions for Negro children reflects, in part, the inadequacy of programs for services for all children.

Children of "other races," a group that in continental United States consists principally of Indians, fare relatively better than do the Negro children in regard to child-welfare services. In 9 of the 15 States (exclusive of Hawaii) having at least 1,000 children of "other races," the proportion of these children receiving service was equal to or greater than that of white children. However, Nevada and Arizona are among the States that reported the lowest rates for Indian children receiving service, although these two States contain the highest proportions of Indians in the child population.

Although special provisions for Indian children may have supplemented to some extent the services provided by State and local public welfare agencies, these data suggest the need for greater awareness of the needs of children in concentrated minority groups and wider provision of services to meet their special needs.

The median age of the children receiving service in the 32 States was 10.7 years. For individual States the median ages ranged from 6.5 years in Florida to 13.8 years in West Virginia. The differences in the median age result from emphasis on different aspects of the child-welfare program in the several States. For example, in Florida the low median age reflects the public child-welfare

program's emphasis on services to children concerned in adoption proceedings, while in West Virginia the high median age reflects the public welfare workers' responsibility for probation and supervision services to children (usually teen-aged) dealt with by the juvenile courts.

In the 32 States combined, 68 percent of the children receiving service were of school age, that is, from 6 to 17 years old—*table 3*. This percentage is noticeably larger than the 58 percent of the total child population of these States who were of school

TABLE 2.—Race of children receiving service in public child-welfare programs, December 31, 1945; 45 States

State and coverage reports	Number of children served				Rate per 1,000 child population <sup>1</sup>		
	Total	White	Negro	Other	White	Negro	Other
Total, 45 States .....	132,202	111,007	17,528	3,340	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Substantially complete reports: Total .....	120,372	100,154	16,773	3,218	4.4	4.3	10.8
Alabama .....	6,765	5,102	1,635	7	6.3	3.5	( <sup>3</sup> )
Alaska .....	391	150	....	239	17.3	....	12.9
Arizona .....	1,751	1,644	82	22	9.4	16.7	.7
Arkansas .....	1,126	1,038	87	1	1.6	.4	( <sup>3</sup> )
Colorado .....	1,487	1,463	19	5	3.6	5.6	2.1
Delaware .....	665	465	200	....	6.1	15.4	....
District of Columbia .....	2,555	1,139	1,416	....	9.7	23.5	....
Florida .....	1,446	1,200	240	....	2.5	1.2	....
Hawaii .....	1,502	146	5	1,350	3.6	( <sup>4</sup> )	9.0
Illinois .....	2,582	1,444	1,131	7	.6	9.1	4.6
Indiana .....	16,115	14,463	1,566	40	12.6	37.8	( <sup>2</sup> )
Kentucky .....	3,083	2,548	535	....	2.2	7.0	....
Maine .....	3,175	3,123	13	25	10.0	( <sup>2</sup> )	( <sup>2</sup> )
Minnesota .....	17,972	16,865	267	821	17.1	96.9	116.2
Mississippi .....	1,015	857	158	....	1.8	.3	( <sup>3</sup> )
Missouri .....	3,304	2,746	516	41	2.3	6.5	( <sup>3</sup> )
Montana .....	1,218	1,138	12	68	5.9	( <sup>3</sup> )	7.2
Nebraska .....	2,281	2,164	86	31	4.6	19.1	14.6
Nevada .....	460	446	7	7	13.8	( <sup>3</sup> )	3.0
New Hampshire .....	2,292	2,271	21	....	13.7	( <sup>3</sup> )	....
New Jersey .....	11,389	8,682	2,696	5	7.0	32.4	( <sup>3</sup> )
North Carolina .....	5,819	4,138	1,631	48	3.6	3.3	3.7
North Dakota .....	1,222	1,047	1	174	4.0	( <sup>2</sup> )	30.3
Ohio .....	4,743	3,588	1,153	2	1.6	9.7	( <sup>2</sup> )
Oklahoma .....	1,388	1,245	54	89	1.4	.8	2.8
Puerto Rico .....	6,393	4,852	1,446	....	6.4	5.9	....
South Carolina .....	3,153	2,260	893	....	4.7	2.1	....
Tennessee .....	1,137	1,025	112	....	1.0	.6	....
Texas .....	3,264	2,891	365	4	1.3	1.0	3.4
Washington .....	4,193	3,903	51	232	7.4	29.8	17.5
West Virginia .....	6,328	5,956	372	....	7.6	7.8	....
Wyoming .....	158	155	3	....	1.7	( <sup>2</sup> )	( <sup>4</sup> )
Incomplete reports: Total .....	11,830	10,853	755	122	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
California .....	685	648	19	18	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Connecticut .....	325	320	5	....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Georgia .....	1,104	894	210	....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Idaho .....	244	242	....	2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Iowa .....	1,628	1,628	....	....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Kansas .....	1,178	1,104	68	6	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Louisiana .....	1,435	1,086	341	8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts .....	453	433	20	....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Michigan .....	1,672	1,456	59	62	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
New Mexico .....	880	859	16	5	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Oregon .....	856	833	14	9	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
South Dakota .....	632	619	2	11	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Utah .....	733	731	1	1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> Population under 21 years of age, 1940 census.

<sup>2</sup> Rate not computed because of incomplete reports.

<sup>3</sup> Rate not computed; 1940 child population less than 1,000.

<sup>4</sup> No children were reported as receiving service; 1940 child population more than 1000.

age in 1940. Children under 6 years of age and those 18 years or older constituted smaller proportions of the children receiving service than of the total child population. Only 7 percent of the children receiving service were 18 through 20 years old, while 15 percent of the child population was in this age range; the difference between these percentages is a reflection of the statutory and administrative age restrictions on services to older children or the lack of resources for service to this group in many States.

The different State patterns in the provision of public child-welfare services are evident in *table 4*, which shows the number of children receiving service per 1,000 child population in specified age groups.

### Living arrangements

Fifty-four percent of the children receiving service on December 31, 1945, were living with parents

**TABLE 3.—Age of children receiving service in public child-welfare programs, December 31, 1945; 45 States**

State and reporting coverage	Children under 21 years of age						Other children <sup>1</sup>
	Total	Percent who were—					
		Under 1 year	1 to 5 years	6 to 13 years	14 to 17 years	18 to 20 years	
Total, 45 States .....	130,135	4	22	43	24	7	2,067
Substantially complete reports:							
Total .....	118,497	4	21	43	25	7	1,875
Alabama .....	6,622	4	23	49	23	1	143
Alaska .....	387	1	21	43	29	6	4
Arizona .....	1,744	7	27	42	20	4	7
Arkansas .....	1,098	7	24	46	20	3	28
Colorado .....	1,486	4	22	46	26	2	1
Delaware .....	665	6	32	47	15	( <sup>2</sup> )	...
District of Columbia .....	2,537	6	20	42	26	6	18
Florida .....	1,403	19	29	37	12	3	43
Hawaii .....	1,492	4	19	46	25	6	10
Illinois .....	2,568	5	19	46	25	5	14
Indiana .....	15,762	4	20	40	27	9	353
Kentucky .....	2,996	5	17	41	30	7	87
Maine .....	3,141	3	18	46	27	6	34
Minnesota .....	17,915	6	25	39	21	9	57
Mississippi .....	987	3	17	45	30	5	28
Missouri .....	3,289	3	21	48	25	3	15
Montana .....	1,209	1	28	47	16	5	9
Nebraska .....	2,272	3	16	34	36	11	9
Nevada .....	460	11	34	39	15	1	...
New Hampshire .....	2,279	3	23	47	23	4	13
New Jersey .....	11,139	1	14	38	29	18	250
North Carolina .....	5,688	5	21	42	28	...	131
North Dakota .....	1,215	5	23	45	21	6	7
Ohio .....	4,730	2	23	40	26	9	13
Oklahoma .....	1,318	8	24	36	28	4	70
Puerto Rico .....	6,257	2	21	59	16	2	136
South Carolina .....	3,059	2	24	50	20	4	94
Tennessee .....	1,126	4	20	48	24	4	11
Texas .....	3,066	5	32	46	16	1	198
Washington .....	4,170	5	27	46	19	3	23
West Virginia .....	6,263	2	13	37	40	9	65
Wyoming .....	154	3	19	49	25	4	4
Incomplete reports: Total .....	11,638	8	26	42	20	4	192
California .....	684	9	47	35	8	1	1
Connecticut .....	308	5	36	41	17	1	17
Georgia .....	1,094	8	27	46	16	3	10
Idaho .....	241	6	26	48	17	3	3
Iowa .....	1,611	4	20	50	22	4	17
Kansas .....	1,147	15	26	26	25	8	31
Louisiana .....	1,392	6	30	43	18	3	43
Massachusetts .....	453	2	21	57	19	4	...
Michigan .....	1,621	6	24	39	28	3	56
New Mexico .....	874	12	24	41	19	4	6
Oregon .....	856	4	23	44	25	4	...
South Dakota .....	629	15	25	40	17	3	3
Utah .....	728	3	29	46	20	2	5

<sup>1</sup> Children for whom age was not reported and individuals over 21 years of age.

<sup>2</sup> Less than 0.5 percent.

or other relatives; 31 percent were living in foster-family homes; and 15 percent were living in institutions or elsewhere.

The extent to which a rounded program of public child-welfare services is available to children varies widely among the States—*table 5*. At one extreme are States, such as Montana, South Carolina, and Texas, where more than three-fourths of the children served were living in the homes of parents or other relatives. At the other extreme are States, such as New Jersey, Illinois, and Ohio, where only one-fourth were living with parents or other relatives. In some of the States in which a high proportion of the children served were living with parents or other relatives, the high proportion may indicate a desirable emphasis on preventive services for children in their own homes; but in other States, especially in the Southern and Mountain regions, such a high proportion probably reflects inadequacy of facilities for foster-family care. In general, States that report a small proportion of the children as receiving service in their own homes

(for example, many of the New England and Middle Atlantic States) are States whose programs have emphasized wardship and foster care.

A significant change for the 30 States submitting substantially complete reports for both years was the increase in the number and the proportion of children in free foster-family homes, an increase that suggests a greater emphasis in 1945 on providing service to children involved in adoptions.

### Duration of service

The median length of time children had been receiving service was 1.7 years in the 32 States combined. State-to-State variations in the length of time children had been served, reflecting different

**TABLE 4.—Number of children receiving service in public child-welfare programs, December 31, 1945, per 1,000 child population, by age; 32 States submitting substantially complete reports**

State	Number of children served per 1,000 population of specified ages <sup>1</sup>					
	Total <sup>2</sup>	Under 1 year	1 to 5 years	6 to 13 years	14 to 17 years	18 to 20 years
Total, 32 States .....	4.5	4.0	4.1	5.0	5.5	2.1
Alabama .....	5.3	4.3	5.0	6.6	6.3	.5
Alaska .....	14.3	3.5	10.6	16.4	24.0	7.1
Arizona .....	8.3	11.9	9.0	9.0	9.1	2.4
Arkansas .....	1.3	2.1	1.3	1.5	1.3	.3
Colorado .....	3.6	3.2	3.3	4.4	4.8	.6
Delaware .....	7.5	9.9	10.9	9.5	5.5	.2
District of Columbia .....	14.3	18.6	12.8	16.9	18.8	4.6
Florida .....	2.1	9.2	2.6	2.0	1.2	.4
Hawaii .....	7.9	8.1	6.8	9.5	9.9	2.9
Illinois .....	1.0	1.2	.9	1.3	1.2	.3
Indiana .....	13.5	11.2	11.5	14.2	17.5	8.2
Kentucky .....	2.5	2.6	1.8	2.6	3.8	1.3
Maine .....	10.1	7.3	7.9	12.0	13.2	4.1
Minnesota .....	18.1	21.9	19.7	18.9	18.8	11.1
Mississippi .....	1.0	.6	.7	1.2	1.6	.3
Missouri .....	2.6	1.9	2.4	3.3	3.1	.6
Montana .....	6.0	1.9	7.0	7.7	5.6	1.9
Nebraska .....	4.8	3.0	3.5	4.3	8.2	3.3
Nevada .....	13.2	27.4	17.8	14.1	10.8	1.0
New Hampshire .....	13.8	11.4	14.4	16.9	15.2	3.4
New Jersey .....	8.6	3.2	5.8	8.5	11.1	8.9
North Carolina .....	3.5	4.0	3.1	3.8	4.8	1.1
North Dakota .....	4.5	5.3	4.6	5.3	4.7	1.8
Ohio .....	2.0	.8	2.1	2.2	2.5	1.1
Oklahoma .....	1.4	2.6	1.4	1.3	1.9	.4
Puerto Rico .....	6.3	2.1	4.8	9.6	6.2	1.1
South Carolina .....	3.5	1.8	3.3	4.5	3.5	.8
Tennessee .....	.9	.3	.8	1.2	1.2	.3
Texas .....	1.3	1.4	1.7	1.5	1.0	1.1
Washington .....	7.7	8.5	9.3	9.9	7.2	1.2
West Virginia .....	7.6	2.9	4.0	7.3	15.1	4.7
Wyoming .....	1.7	1.1	1.3	2.1	2.1	.4

<sup>1</sup> Based on 1940 census.

<sup>2</sup> Computed on basis of population under 21 years of age.

emphases in the child-welfare programs, are shown in *table 6* and are summarized as follows:

<i>Median length of time service had been provided:</i>	<i>Number of States</i>
Less than 1 year.....	12
1 year, up to 2 years.....	11
2 years, up to 3 years.....	5
3 years, up to 5 years.....	3
5 years, up to 10 years.....	1

Almost two-fifths of the children in the 32 States had been receiving service for less than a year. In Florida and Mississippi about three-fourths had been receiving service for less than a year. These high proportions show the influence of such factors as the comparatively recent organization or expansion of child-welfare programs, the availability of resources for certain types of services, and a large volume of adoption investigations, which are generally of short duration.

More than one-fifth of the children in the 32 States had been receiving service for 5 years or longer. In Maine, New Jersey, and Ohio, about 15

percent had been receiving service for 10 years or more. The emphasis on long-term wardship and foster-care programs and the long-time operation of the child-welfare programs are primary factors accounting for the relatively large proportions of children receiving service for long periods in these and in other States.

## Recency of contact

In this report, for the first time data are available on a Nation-wide basis on the recency of contact in behalf of the children receiving service from State and local public welfare agencies. Information on recency of contact gives a quantitative indication of the intensity of the services provided to children in the various States; it is useful in describing the services provided as well as in evaluating the organization for providing those services.

The most recent contacts in behalf of two-thirds of the children receiving service on December 31

**TABLE 5.—Living arrangements of children receiving service in public child-welfare programs, December 31, 1945;  
32 States submitting substantially complete reports**

State	Number of children receiving service	Percent receiving service in—				
		Homes of parents or relatives	Foster-family homes			Institutions or elsewhere
			Boarding	Free	Work or wage	
Total, 32 States .....	120,372	54	22	8	1	15
Alabama .....	6,765	79	5	5	( <sup>1</sup> )	11
Alaska .....	391	42	19	4	3	32
Arizona .....	1,751	59	20	12	( <sup>1</sup> )	9
Arkansas .....	1,126	67	19	8	( <sup>1</sup> )	6
Colorado .....	1,487	51	21	5	2	16
Delaware .....	665	36	43	17	( <sup>1</sup> )	4
District of Columbia .....	2,555	44	31	10	2	13
Florida .....	1,446	45	6	44	( <sup>1</sup> )	5
Hawaii .....	1,502	47	21	9	1	22
Illinois .....	2,582	26	59	5	( <sup>1</sup> )	10
Indiana .....	16,115	50	11	11	1	19
Kentucky .....	3,083	35	12	27	1	25
Maine .....	3,175	34	51	3	2	10
Minnesota .....	17,972	66	15	5	2	12
Mississippi .....	1,015	6	( <sup>1</sup> )	2	2	28
Missouri .....	3,304	48	35	8	1	8
Montana .....	1,218	80	11	3	1	5
Nebraska .....	2,281	59	8	6	2	25
Nevada .....	460	74	12	12	...	2
New Hampshire .....	2,292	43	28	6	2	21
New Jersey .....	11,389	26	41	4	1	28
North Carolina .....	5,819	53	8	20	1	18
North Dakota .....	1,222	81	9	2	2	6
Ohio .....	4,743	27	48	6	3	16
Oklahoma .....	1,388	30	21	17	1	31
Puerto Rico .....	6,393	87	4	3	( <sup>1</sup> )	6
South Carolina .....	3,153	81	5	2	1	11
Tennessee .....	1,137	74	10	6	1	9
Texas .....	3,26	80	6	6	( <sup>1</sup> )	8
Washington .....	4,193	44	41	2	1	6
West Virginia .....	6,31	69	17	6	1	7
Wyoming .....	158	58	24	9	...	9

<sup>1</sup> Less than 0.5 percent.

(for whom this information was reported) were made during the last 3 months of 1945. The most recent contacts in behalf of more than four-fifths of the children were made during the last 6 months of the year. There was considerable variation in recency of contact among the States—*table 7*. In the 32 States together, no contacts were made during 1945 in behalf of 8,371 children, or 8 percent of the children reported as receiving service at the close of the year. A large number of these children were in Minnesota, which reported no contacts during the year for 3,665 children, or one-fifth of the children reported as receiving service in that State.

By and large, more recent contacts were reported for children living in foster-family homes than for those in the other classes of living arrangements—*table 8*. For example, contacts were made during the last 3 months of 1945 in behalf of 81 percent of the children living in foster-family homes, as compared with 62 percent of the children living with parents or other relatives. The higher proportion of recent contacts in behalf of children in foster-family homes, especially those in boarding homes, is due in part to the greater responsibility of the child-welfare agency for the active care of children who are not living with their parents or other relatives. In addition, the data reflect the

**TABLE 6.—Length of time that children had been receiving service in public child-welfare programs, December 31, 1945; 45 States**

State and reporting coverage	Number of children served	Percent served—						
		Less than 1 year	1 year, up to 2 years	2 years, up to 3 years	3 years, up to 4 years	4 years, up to 5 years	5 years, up to 10 years	10 years or longer
Total, 45 States .....	132,202	38	18	10	7	5	16	6
Substantially complete reports:								
Total .....	120,372	37	18	10	7	5	17	6
Alabama .....	6,765	39	25	12	7	4	11	2
Alaska .....	391	33	14	16	13	7	12	5
Arizona .....	1,751	50	27	8	5	3	7	...
Arkansas .....	1,126	59	19	7	6	3	6	...
Colorado .....	1,487	67	15	6	4	4	4	( <sup>1</sup> )
Delaware .....	665	39	23	11	8	1	18	( <sup>1</sup> )
District of Columbia .....	2,555	49	15	6	5	4	16	5
Florida .....	1,446	79	12	2	2	2	3	( <sup>1</sup> )
Hawaii .....	1,502	20	19	13	10	8	29	1
Illinois .....	2,582	33	11	10	14	6	22	4
Indiana .....	16,115	31	18	13	8	7	18	5
Kentucky .....	3,083	41	17	9	8	6	11	8
Maine .....	3,175	28	12	9	7	6	25	14
Minnesota .....	17,972	24	15	10	9	6	24	12
Mississippi .....	1,015	72	20	4	2	2	( <sup>1</sup> )	...
Missouri .....	3,304	41	12	9	8	5	19	6
Montana .....	1,218	26	30	24	8	5	6	1
Nebraska .....	2,281	37	29	15	6	4	8	1
Nevada .....	460	34	26	21	14	3	2	...
New Hampshire .....	2,292	35	11	8	9	5	22	10
New Jersey .....	11,389	13	10	8	8	7	37	17
North Carolina .....	5,819	60	27	6	3	1	3	( <sup>1</sup> )
North Dakota .....	1,222	52	19	8	3	3	12	3
Ohio .....	4,743	24	15	10	5	9	24	13
Oklahoma .....	1,388	51	28	10	4	2	5	( <sup>1</sup> )
Puerto Rico .....	6,393	55	16	12	9	4	4	( <sup>1</sup> )
South Carolina .....	3,153	50	27	10	4	3	6	...
Tennessee .....	1,137	30	23	18	7	6	16	...
Texas .....	3,264	67	20	7	3	1	2	( <sup>1</sup> )
Washington .....	4,193	48	20	9	6	3	12	2
West Virginia .....	6,328	39	22	12	7	5	13	2
Wyoming .....	158	62	9	5	6	7	11	...
Incomplete reports: Total .....	11,830	53	19	10	6	4	7	1
California .....	685	68	17	8	3	2	2	( <sup>1</sup> )
Connecticut .....	325	52	19	17	3	4	5	...
Georgia .....	1,104	50	18	11	4	4	12	1
Idaho .....	244	74	12	6	5	1	2	...
Iowa .....	1,628	48	19	16	7	4	5	1
Kansas .....	1,178	60	14	9	7	3	6	1
Louisiana .....	1,435	50	21	9	6	6	8	...
Massachusetts .....	453	51	18	5	13	2	11	...
Michigan .....	1,677	51	20	7	6	4	9	3
New Mexico .....	880	54	15	11	5	5	9	1
Oregon .....	856	42	22	9	5	5	13	4
South Dakota .....	632	58	10	15	4	2	2	...
Utah .....	733	61	19	8	4	5	3	...

<sup>1</sup> Less than 0.5 percent.

widespread practice of making special provisions during the Christmas season (gifts, visits, etc.) for children receiving service and especially for those living away from their own homes.

The data on recency of contact are influenced by such factors as the need for frequent contacts in particular cases and the substitution of correspondence for personal contacts, because of travel difficulties. In spite of these limitations, however, these statistics raise important questions concerning the child-welfare program—whether the available staff, the supervision of workers serving children, and the policies of public welfare agencies, are adequate to meet children's needs for service.

Additional statistical analyses, as well as selective case reviews, need to be undertaken in the individual States to provide some of the answers to these questions and to discover ways and means of strengthening the programs of services to children.

### Terms Used in the Report

The unit of count in the report is the individual child under 21 years of age; a child for whom service was begun before his twenty-first birthday is

**TABLE 7.—Date of last contact in behalf of children receiving service in public child-welfare programs, December 31, 1945; 45 States**

State and reporting coverage	Number of children served	Number of children for whom date of last contact was reported	Percent of children for whom date of last contact was—			
			October to December 1945	July to September 1945	January to June 1945	Prior to 1945
Total, 45 States .....	132,202	117,022	69	14	10	7
Substantially complete reports: Total .....	120,372	107,502	68	14	10	8
Alabama .....	6,765	6,650	54	20	18	8
Alaska .....	391	390	66	15	10	9
Arizona .....	1,751	1,750	65	16	17	2
Arkansas .....	1,126	1,112	76	14	9	1
Colorado .....	1,487	1,479	89	8	2	1
Delaware .....	665	656	96	2	2	...
District of Columbia .....	2,555	2,526	83	9	6	2
Florida .....	1,446	1,437	87	6	5	2
Hawaii .....	1,502	1,501	77	13	8	2
Illinois .....	2,582	992	81	12	6	1
Indiana .....	16,115	16,052	67	13	11	9
Kentucky .....	3,083	3,067	78	9	8	5
Maine .....	3,175	3,132	76	12	6	6
Minnesota .....	17,972	17,925	52	15	13	20
Mississippi .....	1,015	977	80	15	5	...
Missouri .....	3,304	*3,300	95	9	5	1
Montana .....	1,218	1,171	66	19	8	7
Nebraska .....	2,281	2,281	74	14	8	4
Nevada .....	460	460	60	18	22	( <sup>1</sup> ) 7
New Hampshire .....	2,292	2,287	60	20	13	( <sup>1</sup> ) 7
New Jersey .....	11,389	1,138	62	24	14	( <sup>1</sup> ) 5
North Carolina .....	5,819	5,808	66	16	13	5
North Dakota .....	1,222	1,222	75	12	8	5
Ohio .....	4,743	4,742	91	6	2	1
Oklahoma .....	1,388	1,057	88	7	4	1
Puerto Rico .....	6,393	6,223	63	19	11	7
South Carolina .....	3,153	3,132	63	17	14	6
Tennessee .....	1,137	1,137	70	13	13	4
Texas .....	3,264	3,257	72	13	12	3
Washington .....	4,193	4,193	81	10	6	3
West Virginia .....	6,328	6,291	57	21	14	8
Wyoming .....	158	157	94	2	3	1
Incomplete reports: Total .....	11,830	9,520	82	11	5	2
California .....	685	685	94	6	...	...
Connecticut .....	325	325	70	14	8	8
Georgia .....	1,104	1,104	83	8	6	3
Idaho .....	244	244	89	10	1	...
Iowa .....	1,628	1,621	85	11	4	( <sup>1</sup> ) 5
Kansas .....	1,178	1,161	61	23	11	...
Louisiana .....	1,435	...	...	...	...	...
Massachusetts .....	453	453	69	18	10	3
Michigan .....	1,677	829	87	8	4	1
New Mexico .....	880	877	84	9	5	2
Oregon .....	856	856	91	7	2	( <sup>1</sup> ) 2
South Dakota .....	632	632	79	13	6	2
Utah .....	733	733	90	6	4	( <sup>1</sup> )

<sup>1</sup> Less than 0.5 percent.

**TABLE 8.—Living arrangements of children receiving service in public child-welfare programs, December 31, 1945, by date of last contact; 32 States submitting substantially complete reports**

Living arrangements of children	Number of children receiving service	Number of children for whom date of last contact was reported	Percent of children for whom date of last contact was during period—			
			Oct. to Dec. 1945	July to Sept. 1945	Jan. to June 1945	Prior to 1945
Total .....	120,372	107,502	68	14	10	8
Living arrangements reported: Total ....	119,827	107,008	68	14	10	8
In homes of parents or relatives ...	65,778	63,244	62	16	13	9
In foster-family homes: Total .....	36,347	29,759	81	10	5	4
Boarding .....	25,679	19,731	87	8	3	2
Free .....	9,383	8,843	68	14	11	7
Work or wage .....	1,285	1,185	74	12	7	7
In institutions .....	10,017	9,001	71	13	10	6
Other living arrangements .....	7,685	5,004	57	18	9	16
Living arrangements not reported .....	545	494	49	11	13	27

included after he has reached the age of 21, until decision is made to terminate service. The children reported were those receiving service as of December 31, 1945, from full-time child-welfare workers employed by State or local public welfare agencies and paid from Federal, State, or local funds. Children receiving service from workers whose primary function was the administering of public assistance were included only if the children were in families that did not receive public assistance. Children receiving service from private agencies or from public agencies other than departments of welfare (e. g., juvenile courts, departments of probation or parole, and children's institutions) were not included.

Services to individual children include services to children in their own homes, and care and supervision in foster-family homes and institutions. These services may relate to family, educational, recreational, health, vocational, and other personal problems.

The term "contact" includes completed telephone calls, visits, and office interviews, with the children or with others in their behalf, and conferences with other agencies; it does not include correspondence, either to the children or to others. Several State agencies reported that during 1945 the gasoline and car shortages made necessary the substitution of correspondence for personal visits whenever possible.

Where rates per 1,000 children are given for various groupings of population, those rates represent a comparison of the number of children receiving service on December 31, 1945, with the number of children in the 1940 census for the respective population groups. The 1940 census is used as a base because more recent data by age, race, and State are not available; it is believed that shifts in population since 1940 would not unduly change the proportions shown.

# CHILDREN SERVED BY PUBLIC INSTITUTIONS,

## DECEMBER 31, 1945

*Report prepared by* BEATRICE S. STONE  
*Social Statistics Section, Division of Statistical Research*

APPROXIMATELY 36,000 CHILDREN were living in public institutions for dependent and neglected children or for delinquent children, on December 31, 1945, in the continental United States, Alaska, Hawaii, and Puerto Rico. A little more than a third of these children, or some 13,000, were in institutions primarily for the care of dependent and neglected children. A little less than two-thirds, or some 23,000, were in institutions for delinquent children—usually called training schools or industrial schools. These estimates by the U. S. Children's Bureau are based on information received in its first annual report on children served by such institutions under public auspices.

In this first annual report, 42 States sent in reports (the District of Columbia, Alaska, Hawaii, and Puerto Rico are counted as States). The reports of 36 States were "substantially complete," that is, they covered 90 percent or more of the children receiving service in those States from public institutions for dependent and neglected children or for delinquent children; those 36 States are listed in tables 2, 3, and 4. Reports from 6 States were "incomplete"—covered less than 90 percent of the children receiving such services; those States are Massachusetts, Missouri, Rhode Island, South Carolina, Tennessee, and Washington.

The number of children cared for in these public institutions at the end of 1945 represents a substantial decrease (28 percent) from the number receiving similar care at the end of 1933, in 33 States for which comparable data are available.<sup>1</sup> The de-

crease from 1933 to 1945 was greater for institutions for dependent and neglected children than for institutions for delinquent children—*table 1*.

The decrease in the population of public institutions for dependent and neglected children reflects the development of other resources for providing services to children that has been marked by changes in institutional programs to meet the needs of children, and occasionally by complete termination of the institutional program. The public-assistance and child-welfare-services provisions of the Social Security Act, enacted in 1935, served to increase and implement the emphasis of public child-welfare programs on providing services for children in their own homes whenever possible or in foster-family homes. In the last decade, many communities that previously had been without adequate programs of services for children in their own homes or in foster-family homes were enabled to develop such programs under the auspices of State and local departments of welfare. A recent U. S. Children's Bureau study<sup>2</sup> indicates that in 27 States and the District of Columbia the number of dependent and neglected children in foster-family homes under public auspices increased by 70 percent from 1933 to 1943 while the number in public institutions decreased by 32 percent.

The 20-percent decrease from 1933 to 1945 in the number of children in institutions for delinquent children is significant also. In part it reflects the increased use of probation and parole as methods of supervision of delinquent children in the homes of parents or other relatives or in foster-family homes. It is indicative also of the growing practice of juvenile courts, especially in rural

<sup>1</sup> The 1933 data for institutions for dependent and neglected children were obtained by the Bureau of the Census in cooperation with the U. S. Children's Bureau, and appear in the Census Bureau publication *Children Under Institutional Care and in Foster Homes, 1933* (1935). The 1933 data for institutions for delinquent children appear in the Census Bureau publication *Juvenile Delinquents in Public Institutions, 1933* (1936).

<sup>2</sup> "Changes in Volume of Foster Care, 1933-43," by J. S. Fuerst, in *Social Statistics Supplement to Vol. 9, No. 12* (June 1945), of *The Child*.

areas, of referring children who are alleged to be delinquent to the local department of welfare for study and for the provision of whatever case-work services may be indicated. In recent years, too, the expanded employment opportunities for older children during the defense and war periods accelerated the release from training schools of older children for whom parole was dependent on the availability of job placements.

**TABLE 1.—Number of children in public institutions for dependent and neglected children and for delinquent children, on December 31, 1933 and 1945; 33 States**

Type of institutions	Number of children		Percent decrease, 1933 to 1945
	1933	1945	
Total, all institutions . . . .	33,945	24,442	28
Institutions for dependent and neglected children . . . . .	14,478	8,917	38
Institutions for delinquent children . . . . .	19,467	15,525	20

There has been some change also in the services provided by institutions. A number of institutions are now providing services to children in foster-family homes or in the homes of parents or other relatives as well as to children in residence. Probably a greater number of public institutions, however, are making use of State and local departments of welfare to provide service to children who have been returned to their home communities as well as to those living in the institutions. In its best sense, the institution has come to be regarded as a specialized resource for children who can benefit from the group experience and services available to be used as indicated by the children's needs.

## CHILDREN SERVED BY INSTITUTIONS IN 36 STATES

Almost 40,000 children were reported as receiving service, both in and outside the institutions, from public institutions for dependent and neglected children or for delinquent children on December 31, 1945, in the 36 States for which complete reports were received. Of these, 14,520 children were served by 125 institutions for dependent and neglected children and 24,995 by 85 institutions for delinquent children under the auspices of

State or local authorities.<sup>3</sup> Almost two-thirds of the children served by each type of institution were living in the institutions; the rest were living in the homes of parents or other relatives, in foster-family homes, or elsewhere. The largest number of children receiving service from public institutions was reported by Ohio. Other States reporting substantial numbers were Connecticut, the District of Columbia, Illinois, Indiana, Iowa, Minnesota, New York, and Pennsylvania — *table 2*.

In view of the differences between the programs of the two types of institutions, the rest of this analysis deals with each separately.

## Children living in institutions for dependent and neglected children

Fewer than 10,000 children were receiving care in public institutions for dependent and neglected children at the end of 1945 in the 36 States covered by this report. In 12 of these States there were no institutions under State or local auspices for dependent and neglected children (see *table 2*). In some of these States (New Hampshire and Vermont, for example) large foster-family-care programs under public auspices are in operation and are supplemented by private foster-care programs. In other States (Mississippi, for example) the absence of public institutional programs for dependent and neglected children is coincident with an almost complete lack of provisions for foster-family care of children under public auspices and limited provisions for foster care under private auspices.

The number of children living in public institutions for dependent and neglected children varied from 10 in Arkansas to 3,770 in Ohio. Five States (Indiana, Iowa, Kentucky, Ohio, and Puerto Rico) each reported more than 500 children resident in these institutions. In relation to the total child population in each State, however, the District of Columbia reported the greatest number of children in these institutions, as is shown by the following table of the number of children in such institutions

<sup>3</sup> Institutions were classified according to their primary function, and, with one exception, all children served by each institution were considered as a group without attempting to classify individual children as "dependent or neglected" or as "delinquent." Institutions, usually called "detention homes," whose primary function is the provision of temporary care of children pending investigation and action by the juvenile court were not included in this report.

per 10,000 children under 21 years of age (1940) in each of 24 States:

Total .....	3.4	Nebraska .....	3.0
District of Columbia ..	16.3	Kansas .....	2.0
Ohio .....	16.2	West Virginia .....	1.9
Nevada .....	12.0	Hawaii .....	1.5
Montana .....	11.5	Maine .....	1.2
Indiana .....	9.1	Illinois .....	1.1
Connecticut .....	9.0	Pennsylvania .....	1.0
Iowa .....	5.9	Minnesota .....	.6
Puerto Rico .....	5.1	Georgia .....	.5
Kentucky .....	4.7	New York .....	.3
Oklahoma .....	4.5	North Carolina .....	.2
Wyoming .....	3.5	Arkansas .....	.1
		Michigan .....	.1

The magnitude of the figure for the District of Columbia in the above listing is explained in part by the fact that the Industrial Home Schools, considered as institutions for dependent and neglected children for the purposes of this report, also provide care to delinquent children committed to the Board of Public Welfare by the Juvenile Court. The high figure for Ohio is explained by the existence of a large number of county children's homes

as the sole or primary child-welfare resource in many communities.

The above data cannot be used alone to assess the adequacy of child-welfare programs in the several States. Available data for December 31, 1945, indicate that some of the States with relatively large numbers of children living in public institutions for dependent and neglected children also have relatively large numbers of children receiving noninstitutional services from State and local public welfare agencies.<sup>4</sup> Some of the States (Arkansas, for example) reported relatively small numbers of children receiving both types of services, and in a number of these there are few if any provisions for services to children under private auspices.

Boys comprised 57 percent of all children in these institutions for whom sex of the child was reported. In general, no appreciable variation is noted in this proportion in individual States, with the exception of the District of Columbia. In the District of Columbia, where 255 of the 290 children living in in-

<sup>4</sup> See the accompanying report, "Children Served in Public Child Welfare Programs, December 31, 1945."

**TABLE 2.—Children receiving service from public institutions for dependent and neglected children or for delinquent children, December 31, 1945; 36 States**

State	Total			Number of children receiving service from institutions for—					
				Dependent and neglected children			Delinquent children		
	Total	Living in institution	Living outside institution	Total	Living in institution	Living outside institution	Total	Living in institution	Living outside institution
Total, 36 States	39,515 <sup>b</sup>	25,609	13,906	14,520	9,463	5,057	24,995	16,146	8 849
Alabama .....	743	743	....	....	....	....	743	743	....
Alaska .....	....	....	....	....	....	....	....	....	....
Arkansas .....	401	240	161	22	10	12	379	230	149
Connecticut .....	1,380	913	467	562	497	65	818	416	402
District of Columbia ..	1,162	792	370	290	290	....	872	502	370
Georgia .....	689	689	....	69	69	....	620	620	....
Hawaii .....	396	396	....	29	29	....	367	367	....
Idaho .....	166	166	....	....	....	....	166	166	....
Illinois .....	1,170	1,167	3	276	273	3	894	894	....
Indiana .....	2,684	1,825	859	1,086	1,086	....	1,598	739	859
Iowa .....	1,565	982	583	981	529	452	584	453	131
Kansas .....	401	401	....	125	125	....	276	276	....
Kentucky .....	865	865	....	573	573	....	292	292	....
Louisiana .....	528	322	206	....	....	....	528	322	206
Maine .....	494	338	156	38	38	....	456	300	156
Michigan .....	642	642	....	16	16	....	626	626	....
Minnesota .....	1,406	749	657	61	61	....	1,345	688	657
Mississippi .....	301	218	83	....	....	....	301	218	83
Montana .....	372	372	....	233	233	....	139	139	....
Nebraska .....	494	492	2	148	146	2	346	346	....
Nevada .....	62	62	....	42	42	....	20	20	....
New Hampshire .....	415	103	312	....	....	....	415	103	312
New York .....	3,894	1,402	2,492	159	144	15	3,735	1,258	2,477
North Carolina .....	866	866	....	40	40	....	826	826	....
North Dakota .....	286	157	129	....	....	....	286	157	129
Ohio .....	11,459	5,354	6,105	7,777	3,770	4,007	3,682	1,584	2,098
Oklahoma .....	912	824	88	465	440	25	447	384	63
Oregon .....	491	203	288	....	....	....	491	203	288
Pennsylvania .....	2,058	1,614	444	666	341	325	1,392	1,273	119
Puerto Rico .....	878	77	107	569	517	52	309	254	55
South Dakota .....	153	114	39	....	....	....	153	114	39
Utah .....	35	225	132	....	....	....	357	225	132
Vermont .....	223	134	89	....	....	....	223	134	89
Virginia .....	631	631	....	....	....	....	631	631	....
West Virginia .....	709	709	....	161	161	....	548	548	....
Wyoming .....	262	128	134	132	33	99	130	95	35

stitutions for dependent and neglected children were boys, the preponderance of boys is related to the greater number of delinquent boys dealt with by the Juvenile Court, committed to the Board of Public Welfare and placed in the Industrial Home Schools.

Nonwhite children constituted 13 percent of all children in public institutions for dependent and neglected children for whom race was reported, as compared with 10 percent in the total child population in the 24 States having such institutions. It should be noted, however, that many of the Southern States, with large nonwhite populations, do not have any public institutions for dependent and neglected children. No nonwhite children were reported in these institutions in Arkansas, Illinois, Maine, Michigan, Nevada, and Wyoming. The Thomas Indian School, the only public institution for dependent and neglected children in New York, explains the nonwhite population reported for that State. The racial composition of the institutional population varied markedly among the States—table 3. The proportion of nonwhite children in the resident population of these institutions exceeded

that in the total child population in each of the States that reported a significant number of children in such institutions, except Illinois.<sup>5</sup> In most of these States, also, the relative number of nonwhite children receiving noninstitutional services from State and local public welfare agencies was equal to or higher than the relative number of white children.

### Children living in institutions for delinquent children

Each of the 36 States included in this report, except Alaska, reported children resident in public institutions for delinquent children<sup>6</sup> (see table 2). More than 16,000 children were reported in these institutions in the 35 States, ranging from 20 in Nevada and 95 in Wyoming to 1,258 in New York, 1,273 in Pennsylvania, and 1,584 in Ohio. One-fourth of all children reported in public institutions for delinquent children were in the latter three States. The interstate variations in the population of these institutions is related in part to differences in the size of the total child population and in the ages of children under which juvenile courts have jurisdiction. The following table, showing the number of children in public institutions for delinquent children per 10,000 children under 21 years of age (1940) in each of 34 States, indicates that the State-to-State differences, though marked, are not as great as would appear from the absolute figures:

**TABLE 3—Race of children living in public institutions for dependent and neglected children, December 31, 1945; 36 States**

State	Total	White	Nonwhite
Total, 36 States . . . .	19,463	7,510	1,151
Alabama . . . . .	10	10	0
Alaska . . . . .	0	0	0
Arkansas . . . . .	0	0	0
Connecticut . . . . .	1,497	(1)	(1)
District of Columbia . . . . .	290	117	173
Georgia . . . . .	69	58	11
Hawaii . . . . .	29	0	29
Idaho . . . . .	0	0	0
Illinois . . . . .	273	273	0
Indiana . . . . .	1,086	1,015	71
Iowa . . . . .	529	478	51
Kansas . . . . .	125	105	20
Kentucky . . . . .	573	467	106
Louisiana . . . . .	0	0	0
Maine . . . . .	38	38	0
Michigan . . . . .	16	16	0
Minnesota . . . . .	61	58	3
Mississippi . . . . .	0	0	0
Montana . . . . .	233	198	35
Nebraska . . . . .	146	139	7
Nevada . . . . .	42	42	0
New Hampshire . . . . .	0	0	0
New York . . . . .	144	0	144
North Carolina . . . . .	40	39	1
North Dakota . . . . .	0	0	0
Ohio . . . . .	3,770	3,535	235
Oklahoma . . . . .	440	352	88
Oregon . . . . .	0	0	0
Pennsylvania . . . . .	1,341	1,36	(1)
Puerto Rico . . . . .	517	379	138
South Dakota . . . . .	0	0	0
Utah . . . . .	0	0	0
Vermont . . . . .	0	0	0
Virginia . . . . .	0	0	0
West Virginia . . . . .	161	122	39
Wyoming . . . . .	33	33	0

<sup>1</sup> Race was not reported for all the children in Connecticut and Pennsylvania.

Total . . . . .	4.7	North Dakota . . . . .	5.8
Alabama . . . . .	5.8	Nevada . . . . .	5.7
District of Columbia . . . . .	28.1	Virginia . . . . .	5.7
Hawaii . . . . .	19.2	Iowa . . . . .	5.0
Vermont . . . . .	10.2	North Carolina . . . . .	5.0
Wyoming . . . . .	10.0	Georgia . . . . .	4.6
Maine . . . . .	9.6	South Dakota . . . . .	4.5
Utah . . . . .	9.3	Kansas . . . . .	4.3
Idaho . . . . .	7.8	Oklahoma . . . . .	4.0
Connecticut . . . . .	7.6	Pennsylvania . . . . .	3.6
Nebraska . . . . .	7.2	Illinois . . . . .	3.6
Minnesota . . . . .	6.9	Michigan . . . . .	3.3
Montana . . . . .	6.8	Louisiana . . . . .	3.3
Ohio . . . . .	6.8	New York . . . . .	3.0
West Virginia . . . . .	6.6	Arkansas . . . . .	2.7
Indiana . . . . .	6.2	Kentucky . . . . .	2.4
New Hampshire . . . . .	6.2	Mississippi . . . . .	2.2
Oregon . . . . .	5.9		

<sup>5</sup> This is limited to the 13 States reporting 100 or more children in public institutions for dependent and neglected children as well as the racial distribution of the entire institutional population.

<sup>6</sup> Alaska reported 6 children receiving care in the Utah State Industrial School who are included in the figures for Utah.

The relatively large number of children in institutions for delinquent children in the District of Columbia is explained partially by the inclusion in the report of data for the National Training School for Boys (administered by the Bureau of Prisons, U. S. Department of Justice), which receives a large number of delinquent children committed by Federal courts in other States as well as those in the District of Columbia. The relatively large number in Hawaii is indicative of the lack of noninstitutional services for delinquent children.

Boys comprised a large majority of the residents of public institutions for delinquent children. In the 35 States combined, less than one-third (30 percent) of the children in these institutions for whom sex of the child was reported were girls. In all States except Hawaii boys outnumbered girls, although in some of these the differences are not significant—*table 4*. The preponderance of boys in public institutions for delinquent children is related

to the larger number of boys' cases than of girls' cases that are dealt with by juvenile courts.<sup>7</sup>

Nonwhite children represented 29 percent of all children in public institutions for delinquent children for whom race was reported in the 35 States having such institutions. This is significantly higher than the percentage of nonwhite children (13 percent) in the total child population of these States and reflects in part the inadequacy of other services for Negro and other nonwhite children in most States. The interstate variations in the proportion of the population of these institutions that was nonwhite are related in some measure to differences in the racial composition of the child population of the various States (see *table 4*). In almost every State the proportion of nonwhite children in the population of public institutions for delinquent children

<sup>7</sup> "Juvenile-Court Statistics for 1945," by I. Richard Perlman, in *Social Statistics Supplement to Vol. 11* (November 1946 Supplement) of *The Child*.

**TABLE 4.—Sex and race of children living in public institutions for delinquent children, December 31, 1945; 36 States**

State	Total number	Percent				Percent nonwhite children in 1940 child population <sup>1</sup>
		Sex		Race		
		Boys	Girls	White	Nonwhite	
Total, 36 States .....	<sup>2</sup> 16,146	70	30	71	29	13
Alabama .....	743	77	23	49	51	36
Alaska .....	230	85	15	55	45	68
Arkansas .....	<sup>2</sup> 416	59	41	...	...	25
Connecticut .....	502	90	10	63	37	2
District of Columbia .....	620	80	20	47	53	34
Georgia .....	367	48	52	6	94	37
Hawaii .....	166	72	28	...	100	79
Idaho .....	894	68	32	71	29	1
Illinois .....	739	62	38	82	18	5
Indiana .....	453	71	29	92	8	3
Iowa .....	276	54	46	70	30	1
Kansas .....	292	81	19	86	14	4
Kentucky .....	322	77	23	69	31	6
Louisiana .....	300	52	48	99	1	38
Maine .....	626	54	46	82	18	( <sup>3</sup> )
Michigan .....	688	64	36	91	9	4
Minnesota .....	218	70	30	78	22	1
Mississippi .....	139	52	48	81	19	52
Montana .....	346	60	40	91	9	5
Nebraska .....	20	100	...	100	...	1
Nevada .....	103	71	29	100	...	7
New Hampshire .....	1,258	71	29	58	42	( <sup>3</sup> )
New York .....	826	75	25	73	27	4
North Carolina .....	157	71	29	90	10	31
North Dakota .....	1,584	71	29	72	28	2
Ohio .....	384	73	27	66	34	5
Oklahoma .....	203	69	31	97	3	11
Oregon .....	<sup>2</sup> 1,273	77	23	79	21	2
Pennsylvania .....	254	82	18	66	34	5
Puerto Rico .....	114	63	37	79	21	24
South Dakota .....	225	72	28	93	7	5
Utah .....	134	63	37	99	1	2
Vermont .....	631	77	23	51	49	( <sup>3</sup> )
Virginia .....	548	61	39	83	17	27
West Virginia .....	95	52	48	99	1	6
Wyoming .....						2

<sup>1</sup> Children under 21 years of age according to the 1940 census.

<sup>2</sup> Includes a number of children for whom race was not reported. Per cents were based on reported totals.

<sup>3</sup> Less than 0.5 percent.

exceeded that in the total child population. Three notable exceptions to this are Louisiana, Mississippi, and North Carolina. States with large nonwhite populations, in which the low proportions of nonwhite children in the populations of these institutions reflect the absence of facilities for these children or the recency of the establishment of such facilities.

### Children served outside the institutions by public institutions for dependent and neglected children

As has been indicated earlier, slightly more than one-third (35 percent) of the children receiving service from public institutions for dependent and neglected children on December 31, 1945, were living outside the institutions. Service for children outside the institutions was provided in 11 of the 24 States having public institutions for dependent and neglected children—these 11 States are Arkansas, Connecticut, Illinois, Iowa, Nebraska, New York, Ohio, Oklahoma, Pennsylvania, Puerto Rico, and Wyoming. Most (79 percent) of the 5,057 children receiving such service, however, were served by the county children's homes in Ohio. Significant numbers of children also were served outside the institutions in Iowa, Pennsylvania, and Wyoming.

The proportion of girls (49 percent) among the children served outside the institutions was somewhat higher than that (43 percent) among those

living in the institutions. However, the proportion of nonwhite children (11 percent) among those served outside the institutions was not significantly different from that (13 percent) among those living in the institutions.

Almost three-fifths (59 percent) of the children receiving service outside the institutions were living in foster-family homes, and more than a third (37 percent) were living with their parents or other relatives—*table 5*. This distribution, of course, is weighted heavily by the large number of children served outside the institutions in Ohio, which reported more than three-fourths of the children reported by all States to be living in foster-family homes and more than seven-eighths of all the children living with parents or other relatives.

### Children served outside the institutions by public institutions for delinquent children

Twenty-one of the 36 States reported children who were receiving service from public institutions for delinquent children but who were not living in the institutions (see *table 2*). Slightly more than a third (8,849) of all children receiving service from these institutions were living outside the institutions. The data reported are limited to children receiving service from staffs administratively responsible to the institution superintendents. Data are not included for

**TABLE 5.—Living arrangements of children receiving service outside public institutions for dependent and neglected children or delinquent children, December 31, 1945 <sup>1</sup>**

Living arrangements	Children receiving service outside the institution					
	Total		From institutions for—			
			Dependent and neglected children		Delinquent children	
	Number	Percent	Number	Percent	Number	Percent
Total .....	13,906	....	5,057	....	8,849	....
Reported: Total: .....	12,238	100	5,057	100	7,181	100
In foster-family homes .....	<sup>2</sup> 4,134	34	<sup>2</sup> 3,001	59	1,133	16
Boarding .....	1,249	11	1,186	24	63	1
Free .....	1,472	12	1,401	28	71	1
Work or wage .....	1,348	11	349	7	999	14
In homes of parents or other relatives .....	6,900	56	1,838	37	5,062	70
Elsewhere .....	1,204	10	218	4	986	14
Not reported .....	1,668	....	....	....	1,668	....

<sup>1</sup> Includes 11 States in which children were receiving service from institutions for dependent and neglected children and 21 States in which children were receiving service from institutions for delinquent children.

<sup>2</sup> Includes 65 children for whom type of foster-family home was not reported.

those States in which parole service or "aftercare" supervision is provided independently of the institutions.

The number of children receiving service outside the institutions ranged from 35 in Wyoming to 2,477 in New York. The number of children receiving such service in New York constituted more than one-fourth (28 percent) of all children in the reporting States served "extramurally" by institutions for delinquent children, and the number in Ohio (2,098) accounted for an additional 24 percent of the total. In almost all the States reporting such service, the number of children served outside the institutions was a more substantial portion of the total number of children served by institutions for delinquent children than of the total served by institutions for dependent and neglected children.

Most of the children (70 percent) served outside the institutions by institutions for delinquent children were living with parents or relatives; another 16 percent were living in foster-family homes. This is in contrast to the distribution noted for institutions for dependent and neglected children for

which only 37 percent of the children served extramurally were in the homes of parents or relatives and 59 percent were in foster-family homes. A contrast is evident also in the type of foster-family homes in which the children lived. Of all children in foster-family homes receiving service from both groups of institutions, 88 percent of those served by institutions for delinquent children, as compared with 12 percent of those served by institutions for dependent and neglected children, were in work or wage homes (see table 5). These differences are related to basic differences in the functions and programs of the two groups of institutions as well as in the age groups served. For the children served extramurally by institutions for dependent and neglected children the basic service consists in provision of substitute family homes or in some cases supervision in the children's own homes; for those served extramurally by institutions for delinquent children the basic services usually consist only in nominal supervision, generally in the children's own homes or in work or wage homes, during the adjustment period following parole from the institutions.

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## ESTIMATED NUMBER OF CHILDREN SERVED BY PUBLIC CHILD WELFARE AGENCIES AND INSTITUTIONS DECEMBER 31, 1945

The data presented in this report on children receiving service from public institutions for dependent and neglected children or for delinquent children supplement the information on the number of children receiving noninstitutional service from State and local public welfare agencies. On the basis of the information from these reports it is estimated that in the 52 States and Territories approximately 277,000 children were receiving service from these administrative units on December 31, 1945, including 36,000 children in public institutions for dependent and neglected children or for delinquent children.

This estimate does not include, for the most part, the large number of children in families receiving aid-to-dependent-children grants or other financial assistance from public welfare agencies, those served by other administrative units (such as juvenile courts), or those served by private agencies and institutions. It is hoped, however, that as reporting is developed and extended to include these programs of services for children it will be possible to obtain an over-all count of the children served by all agencies and institutions under public and private auspices.

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**FURTHER PROGRESS  
IN REDUCING  
MATERNAL AND INFANT  
MORTALITY •**

**record of 1945 and 1946**

U. S. SUPERINTENDENT OF DOCUMENTS

OCT 14 1949

# FURTHER PROGRESS IN REDUCING MATERNAL AND INFANT MORTALITY

## the record of 1945 and 1946

By GEORGE WOLFF and ELEANOR P. HUNT

PROGRESS in reducing deaths among infants and their mothers continued all through the period of the war, and an even better advance came with the first postwar year. This continued decline in maternal and infant mortality during the war years deserves special note. Those were years that brought unprecedented moving about of families, and acute shortages of health facilities and medical personnel for civilian care. At the same time, during most of those years a rising birth rate meant increasing numbers of mothers and infants to be cared for. With restricted facilities, with a reduced medical and nursing personnel, with more mothers and babies to watch out for, the United States kept on pushing down its maternal and infant death rates.

This report considers the record in safeguarding the lives of childbearing women and their babies in 1945, the last year of the war, and in somewhat less detail the record also for 1946, first of the postwar years. Previous reports have covered the record through 1944.<sup>1</sup>

The report provides material for comparing maternal and infant mortality experience in different States and regions of the country and in different racial groups and age groups of childbearing women. The differences revealed point to areas of the country and to groups of the population for which further protection is needed to better conserve the lives of mothers and babies.

<sup>1</sup> "The 1940 Record of Maternal and Infant Mortality in the United States," by J. Yerushalmy, in *The Child* 6: 195-206, February 1942. "Maternal and Infant Mortality in the United States, 1941," by J. Yerushalmy, in *The Child* 7: 110-116, February 1943. "Maternal and Infant Mortality in the United States, 1942," by Marjorie Gooch, in *The Child* 8: 179-185, June 1944. "Ten Years of Progress in Reducing Maternal and Infant Mortality," by Marjorie Gooch, in *The Child* 10: 77-83, November 1945. *Maternal and Infant Mortality in 1944*, by George Wolff, Children's Bureau Statistical Series, No. 1, 1947.

Along with its discussion of deaths among childbearing women and among infants, the report deals with trends shown by statistics on live births and on deliveries in hospitals. These are of special interest in considering mortality of mothers and infants because the number of live births in a given year is taken as an approximate measure of the childbearing and infant population exposed to risk of death.

The analysis presented here is based on data from the National Office of Vital Statistics.

## BIRTHS

### Birth rate

The national birth rate dropped off in 1945 for a second consecutive year from the wartime high it had reached in 1943. The rate in 1943 had stood at 21.5 births per 1,000 persons in our population (including the armed forces overseas). In 1944 it had dropped back to 20.2. In 1945 it fell to 19.6.

This further drop in the birth rate in 1945 reflected the continuing movement of men overseas and the decrease in the number of marriages that had come in 1944. Regional birth rates for the census divisions of the United States were lower in 1945 than in 1944 for all except the Middle Atlantic division. Among individual States, only Connecticut, New Jersey, and New York, and the District of Columbia, showed slight increases in opposition to the general decline.

The year 1946, however, saw a sharp upward turn in the birth rate. With the end of hostilities

#### Note for all tables:

- (one dash) means zero in tabulation of absolute numbers
- 0 means zero in tabulation of relative figures (rates, percentages, etc.)
- 0.0 means rate or percent is less than 0.05 but more than 0

**Table 1.—Birth rates in the United States by geographic divisions, 1943-46**

(By place of residence. Exclusive of stillbirths. Rates per 1,000 estimated population)

Geographic divisions ranked by birth rates in 1945	1946	1945	1944	1943	Percent change, 1946 from 1945
Middle Atlantic.....	21.5	19.0	18.9	20.5	+13.2
New England.....	21.4	19.2	19.8	21.8	+11.5
East North Central.....	22.7	19.7	20.2	21.7	+15.2
West North Central.....	22.7	20.1	20.8	21.0	+12.9
Pacific.....	23.2	21.6	22.3	23.1	+7.4
West South Central.....	25.9	24.2	25.9	25.4	+7.0
South Atlantic.....	26.4	24.8	25.6	26.3	+6.5
East South Central.....	27.7	25.1	26.3	26.8	+10.4
Mountain.....	28.1	25.4	26.0	25.6	+10.6
United States:					
Based on civilian population.....	23.8	21.5	22.1	23.0	+10.7
Based on total population.....	23.3	19.6	20.2	21.5	+18.9

NOTE.—Rates for geographic divisions are based on civilian population present in the area. Rates for the United States based on civilian population for comparison, and on total population including armed forces overseas.

and the beginning of demobilization of the armed forces late in 1945, and with employment conditions generally good, the number of marriages reached new high levels in 1945 and in 1946.<sup>2</sup> The national birth rate in 1946 climbed to 23.3 per 1,000 total population (including the armed forces overseas). This was the highest rate recorded since 1921 and was an increase of nearly 19 percent over the rate for 1945. The rate increased in every region and in every State except Florida; in all the regions except New England the 1946 rates surpassed the wartime-high rates of 1943. (See table 1.)

## Number of births

Registered live births in the United States in 1945 numbered 2,735,456. This figure was some 60,000 lower than that for 1944 and nearly 200,000 below the wartime high (2,934,860) of 1943. In 1946 the number of registered live births passed the 3 million mark (3,288,672) and exceeded the number registered in any previous year. Unfortunately, some live births in the United States each year are not registered and consequently the number of registered live births is not

a complete count of all live births in a given year. With allowances for underregistration, the total number of live births in 1945 is estimated at 2,894,000, and the number for 1946 is estimated at 3,458,000.<sup>3</sup> The total number similarly estimated for 1943 was 3,127,000.<sup>4</sup>

The number of registered live births and the crude birth rate based on civilian population in each of the States in 1945 and in 1946 are shown in table 2. In 1945, birth rates per 1,000 civilian population ranged from a low of 18.1 in New Hampshire to a high of 31.3 in New Mexico. In 1946 the lowest rate, 20.6, was in Massachusetts, while New Mexico with 34.9 continued to have the highest.

## Differences between white and nonwhite groups

Birth rates for the population classed as nonwhite were appreciably higher than those for the white population in both 1945 and 1946. In 1945 the nonwhite rate was 20 percent higher; in 1946 it was 10 percent higher. That is to say, the natality increase from 1945 to 1946 was

<sup>2</sup> Marriages in 1946 exceeded 2 million; the figure for that year, 2,291,045, was the largest ever reported for any one year in the United States. The provisional figure for 1947 was close to 2 million (1,992,354). See "Provisional Marriage and Divorce Statistics, United States, 1947," Vital Statistics—Special Reports, Vol. 29, No. 4, September 9, 1948, National Office of Vital Statistics.

<sup>3</sup> In 1947 a new peak was reached with a total of 3,699,940 registered live births. When allowance is made for underregistration, the estimate goes up to about 3,876,000 live births. See "Summary of Natality Statistics, United States, 1947," Vital Statistics—Special Reports, Vol. 31, No. 2, March 30, 1949, National Office of Vital Statistics.

<sup>4</sup> "Natality and Mortality Statistics, United States, 1946," Vital Statistics—Special Reports, Vol. 29, No. 1, July 12, 1948, National Office of Vital Statistics.

**Table 2.—Number of births and birth rates: United States and each State, 1946 and 1945**

(By place of residence. Exclusive of stillbirths. Rates per 1,000 estimated population. Rates for States based on civilian population in the States)

Area	Number of births		Birth rate	
	1946	1945	1946	1945
United States-----	3, 288, 672	2, 735, 456	<sup>1</sup> 23. 3 <sup>2</sup> 23. 8	<sup>1</sup> 19. 6 <sup>2</sup> 21. 5
Alabama-----	79, 863	70, 321	28. 8	26. 8
Arizona-----	16, 345	13, 348	26. 5	24. 7
Arkansas-----	45, 280	39, 628	24. 1	22. 2
California-----	218, 484	184, 380	23. 4	22. 0
Colorado-----	29, 518	23, 511	26. 8	23. 2
Connecticut-----	41, 457	33, 765	21. 2	19. 0
Delaware-----	6, 802	5, 984	23. 8	22. 5
District of Columbia-----	18, 601	16, 141	22. 8	19. 6
Florida-----	53, 688	47, 791	23. 9	24. 1
Georgia-----	85, 667	74, 852	27. 7	26. 3
Idaho-----	13, 787	11, 501	29. 3	25. 6
Illinois-----	174, 825	138, 705	22. 0	19. 0
Indiana-----	85, 515	68, 444	22. 8	19. 7
Iowa-----	56, 186	44, 934	22. 1	19. 0
Kansas-----	39, 751	33, 624	21. 7	19. 8
Kentucky-----	72, 542	60, 892	26. 9	24. 0
Louisiana-----	68, 670	57, 838	27. 8	25. 3
Maine-----	20, 326	16, 687	23. 3	20. 9
Maryland-----	50, 347	42, 791	23. 9	22. 5
Massachusetts-----	94, 288	77, 064	20. 6	18. 9
Michigan-----	139, 277	112, 655	23. 0	20. 3
Minnesota-----	67, 266	54, 656	23. 9	20. 9
Mississippi-----	61, 690	54, 263	29. 7	26. 7
Missouri-----	80, 684	65, 659	21. 4	18. 9
Montana-----	12, 858	10, 601	27. 0	23. 7
Nebraska-----	28, 052	24, 128	22. 1	20. 3
Nevada-----	3, 283	2, 851	24. 6	24. 2
New Hampshire-----	11, 092	8, 338	21. 6	18. 1
New Jersey-----	95, 218	77, 338	22. 6	20. 3
New Mexico-----	18, 087	15, 306	34. 9	31. 3
New York-----	286, 546	234, 754	20. 9	18. 7
North Carolina-----	100, 679	87, 401	28. 2	26. 2
North Dakota-----	15, 264	13, 147	28. 4	25. 5
Ohio-----	169, 600	132, 496	22. 6	19. 5
Oklahoma-----	50, 416	43, 165	22. 8	21. 3
Oregon-----	30, 076	24, 140	20. 8	18. 5
Pennsylvania-----	218, 376	173, 799	21. 8	18. 8
Rhode Island-----	16, 761	13, 635	22. 8	20. 3
South Carolina-----	53, 963	49, 431	28. 7	27. 4
South Dakota-----	14, 580	12, 460	26. 7	24. 2
Tennessee-----	77, 335	64, 966	25. 9	23. 4
Texas-----	181, 579	157, 915	26. 7	25. 3
Utah-----	18, 220	15, 680	29. 2	27. 3
Vermont-----	8, 362	6, 873	23. 7	20. 9
Virginia-----	75, 861	67, 068	26. 3	25. 2
Washington-----	51, 988	44, 573	24. 0	22. 0
West Virginia-----	48, 673	39, 039	26. 9	23. 1
Wisconsin-----	74, 755	61, 437	23. 6	21. 0
Wyoming-----	6, 188	5, 481	23. 8	23. 2

<sup>1</sup> Based on total population including armed forces overseas.

<sup>2</sup> Based on civilian population for comparison with the States.

greater for the white population than for the nonwhite. For the white population the birth rate rose from 19.2 in 1945 to 23.0 in 1946, an increase of 19.8 percent, while the rate for the nonwhite population went from 23.3 to 25.3, an increase of 8.6 percent.

In 1945, 11.9 percent or 324,264 of the 2,735,456 registered live births were Negro. In 1946, 10.9 percent or 358,114 of the 3,288,672 registered live births were Negro. In each year, hardly more than one-half of 1 percent, 15,629 in 1945 and 16,913 in 1946, belonged to other groups classed as nonwhite (Indian, Japanese, Chinese, and all other).

Among the nonwhite groups, the native Indians showed in both years the highest birth rates, 26.8 in 1945 and 28.8 in 1946, and the Chinese showed the lowest, 16.4 and 18.6. Table 3 gives the number of births and the birth rates in 1945 and 1946 for these different racial groups.

**Table 3.—Number of births and birth rates by specified race: United States, 1946 and 1945**

(Exclusive of stillbirths. Rates per 1,000 estimated population including armed forces overseas)

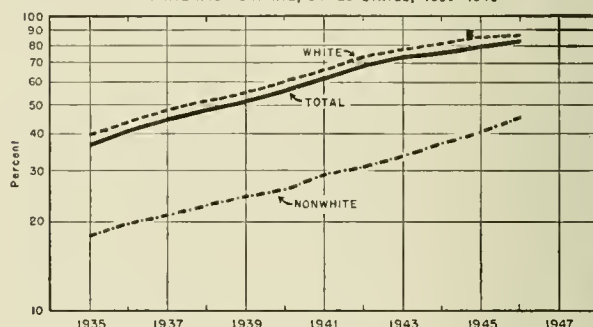
Race	Number of births		Birth rate	
	1946	1945	1946	1945
Total.....	3, 288, 672	2, 735, 456	23. 3	19. 6
White.....	2, 913, 645	2, 395, 563	23. 0	19. 2
Nonwhite.....	375, 027	339, 893	25. 3	23. 3
Negro.....	358, 114	324, 264	25. 3	23. 3
Indian.....	11, 191	10, 172	28. 8	26. 8
Japanese.....	2, 756	2, 936	21. 5	23. 0
Chinese.....	1, 534	1, 382	18. 6	16. 4
Other.....	1, 432	1, 139	25. 9	20. 2

In 1945, for the different States the proportion of live births that were nonwhite varied from 0.1 percent in Vermont (5 Negro live births out of 6,873) to nearly 56 percent in Mississippi (30,160 nonwhite live births out of 54,263). In 1946 the percentages were somewhat less in most States. The proportion for each State, and the number of white, Negro, and other nonwhite live births in 1945 and in 1946 are given in table 4.

## Trend of hospitalization for delivery

The period from 1935 to 1946 has seen a remarkable rise in the proportion of mothers hospitalized for delivery of their babies, from a little over one-third (36.9 percent) in 1935, the first year for which such information was available, to more than four-fifths (82.4 percent) in 1946. This extension of hospital service has been one of the factors contributing to the reduction of mortality among mothers and infants during childbirth. The gains were made not only in the face of large increases in the number of deliveries, year by year with few exceptions, but also in spite of greatly increased demands on medical and public health personnel and facilities throughout the prewar and especially the wartime periods.

**Figure 1. PERCENTAGE OF LIVE BIRTHS THAT OCCURRED IN HOSPITALS WHITE AND NONWHITE, UNITED STATES, 1935-1946**



Certainly, a noteworthy element in the recent steady increase in proportion of births in hospitals was the Emergency Maternity and Infant Care program (EMIC) under which more than 925,000 mothers were delivered in the period from January 1, 1944, through December 31, 1946. In 1945, 92.3 percent of all births under the program took place in hospitals, compared with 78.8 percent of all the live births in the country. In 1946, 94.7 percent of all EMIC births were in hospitals, compared with 82.4 percent of all live births in the United States.<sup>5</sup>

The trend, from 1935 to 1946, of hospitalization for delivery, for all births and for births in the white and nonwhite groups, is shown in table 5 and figure 1. In the same table are given corre-

<sup>5</sup> See "Four Years of the EMIC Program," by Martha M. Eliot and Lillian R. Freedman, in the *Yale Journal of Biology and Medicine* 19: 621-635, March 1947. That paper shows for the year 1944 by States the proportion of EMIC births in hospitals as compared with the proportion of all live births in hospitals.

**Table 4.—Number of births by race and percent of all births nonwhite: United States and each State, 1946 and 1945**

(By place of residence. Exclusive of stillbirths)

State	1946				1945			
	White	Nonwhite			White	Nonwhite		
		Negro	Other	Percent		Negro	Other	Percent
United States.....	2, 913, 645	358, 114	16, 913	11. 4	2, 395, 563	324, 264	15, 629	12. 4
Alabama.....	51, 944	27, 901	18	35. 0	44, 091	26, 204	26	37. 3
Arizona.....	14, 379	477	1, 489	12. 0	11, 549	406	1, 393	13. 5
Arkansas.....	35, 165	10, 091	24	22. 3	29, 495	10, 093	40	25. 6
California.....	205, 159	9, 523	3, 802	6. 1	173, 687	7, 442	3, 251	5. 8
Colorado.....	28, 880	347	291	2. 2	22, 864	328	319	2. 8
Connecticut.....	40, 334	1, 108	15	2. 7	32, 832	915	18	2. 8
Delaware.....	5, 811	966	25	14. 6	5, 067	901	16	15. 3
District of Columbia.....	12, 279	6, 258	64	34. 0	10, 862	5, 242	37	32. 7
Florida.....	40, 114	13, 544	30	25. 3	35, 207	12, 551	33	26. 3
Georgia.....	56, 385	29, 270	12	34. 2	47, 493	27, 347	12	36. 6
Idaho.....	13, 571	13	203	1. 6	11, 288	8	205	1. 9
Illinois.....	162, 314	12, 138	373	7. 2	128, 577	9, 792	336	7. 3
Indiana.....	82, 279	3, 220	16	3. 8	65, 623	2, 800	21	4. 1
Iowa.....	55, 774	355	57	0. 7	44, 584	292	58	0. 8
Kansas.....	38, 266	1, 392	93	3. 7	32, 383	1, 170	71	3. 7
Kentucky.....	69, 142	3, 392	8	4. 7	57, 654	3, 236	2	5. 3
Louisiana.....	43, 244	25, 314	112	37. 0	35, 240	22, 494	104	39. 1
Maine.....	20, 290	10	26	0. 2	16, 638	28	21	0. 3
Maryland.....	41, 083	9, 231	33	18. 4	34, 647	8, 122	22	19. 0
Massachusetts.....	92, 787	1, 444	57	1. 6	75, 805	1, 190	69	1. 6
Michigan.....	130, 945	8, 107	225	6. 0	105, 840	6, 607	208	6. 0
Minnesota.....	66, 511	188	567	1. 1	53, 921	142	593	1. 3
Mississippi.....	29, 975	31, 609	106	51. 4	24, 103	30, 031	129	55. 6
Missouri.....	74, 637	6, 006	41	7. 5	60, 474	5, 150	35	7. 9
Montana.....	12, 229	10	619	4. 9	9, 974	12	615	5. 9
Nebraska.....	27, 477	396	179	2. 0	23, 585	358	185	2. 3
Nevada.....	3, 037	87	159	7. 5	2, 640	60	151	7. 4
New Hampshire.....	11, 074	16	2	0. 2	8, 324	14	—	0. 2
New Jersey.....	88, 620	6, 535	63	6. 9	71, 809	5, 481	48	7. 1
New Mexico.....	16, 674	179	1, 234	7. 8	14, 041	130	1, 135	8. 3
New York.....	269, 271	16, 727	548	6. 0	221, 326	13, 009	419	5. 7
North Carolina.....	71, 062	28, 563	1, 054	29. 4	59, 503	26, 848	1, 050	31. 9
North Dakota.....	14, 893	3	368	2. 4	12, 819	1	327	2. 5
Ohio.....	159, 693	9, 809	98	5. 8	124, 619	7, 782	95	5. 9
Oklahoma.....	44, 843	3, 387	2, 186	11. 1	38, 366	3, 025	1, 774	11. 1
Oregon.....	29, 504	263	309	1. 9	23, 563	268	309	2. 4
Pennsylvania.....	205, 449	12, 871	56	5. 9	162, 177	11, 569	53	6. 7
Rhode Island.....	16, 425	327	9	2. 0	13, 302	325	8	2. 4
South Carolina.....	31, 010	22, 933	20	42. 5	26, 745	22, 668	18	45. 9
South Dakota.....	13, 932	5	643	4. 4	11, 786	15	659	5. 4
Tennessee.....	65, 507	11, 822	7	15. 3	54, 218	10, 740	8	16. 5
Texas.....	160, 269	21, 205	105	11. 7	138, 286	19, 477	152	12. 4
Utah.....	17, 949	61	210	1. 5	15, 406	49	225	1. 7
Vermont.....	8, 358	3	1	0. 0	6, 868	5	—	0. 1
Virginia.....	58, 348	17, 502	11	23. 1	50, 246	16, 806	16	25. 1
Washington.....	50, 547	652	789	2. 8	43, 191	646	736	3. 1
West Virginia.....	46, 228	2, 443	2	5. 0	36, 902	2, 134	3	5. 5
Wisconsin.....	73, 934	389	432	1. 1	60, 704	323	410	1. 2
Wyoming.....	6, 044	22	122	2. 3	5, 239	28	214	4. 4

**Table 5a.—Percent of live births by person in attendance and by race: United States, 1935-46**

Year	Percent of live births attended by—								
	Physician						Nonmedical person		
	In hospital			In home					
	All races	White	Non-white	All races	White	Non-white	All races	White	Non-white
1946-----	82.4	87.1	45.2	12.2	11.2	20.0	5.4	1.6	34.8
1945-----	78.8	84.3	40.2	14.7	13.7	21.7	6.5	2.0	38.1
1944-----	75.6	81.0	37.0	17.7	16.9	23.1	6.7	2.1	39.9
1943-----	72.1	77.2	33.3	21.0	20.6	24.0	6.9	2.2	42.7
1942-----	67.9	72.7	30.6	24.7	24.8	24.0	7.4	2.5	45.3
1941-----	61.2	65.7	29.0	30.2	31.2	23.3	8.6	3.1	47.7
1940-----	55.8	59.9	26.7	35.0	36.5	24.1	9.2	3.6	49.2
1939-----	51.1	55.0	24.3	39.1	41.1	24.8	9.8	3.9	50.9
1938-----	48.0	51.6	22.7	41.8	44.2	25.0	10.1	4.2	52.3
1937-----	44.8	48.2	21.0	44.6	47.3	25.5	10.6	4.5	53.5
1936-----	40.9	43.9	19.5	47.3	50.4	25.5	11.7	5.7	55.0
1935-----	36.9	39.6	18.2	50.6	54.0	26.4	12.5	6.4	55.4

**Table 5b.—Percent of live births by person in attendance in urban and rural areas: United States, 1940-46**

(By place of residence)

Year	Percent of live births attended by—								
	Physician						Nonmedical person		
	In hospital			In home					
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
1946.....	82.4	92.5	67.1	12.2	5.4	22.5	5.4	2.1	10.4
1945.....	78.8	90.8	61.4	14.7	6.8	26.2	6.5	2.4	12.4
1944.....	75.6	89.1	56.9	17.7	8.4	30.4	6.7	2.4	12.7
1943.....	72.1	86.9	51.2	21.0	10.5	35.6	6.9	2.5	13.1
1942.....	67.9	84.4	44.8	24.7	13.1	41.0	7.4	2.6	14.2
1941.....	61.2	80.2	37.8	30.2	16.9	46.6	8.6	2.9	15.6
1940.....	55.8	76.0	32.3	35.0	20.9	51.3	9.2	3.1	16.4

sponding figures for births in urban and rural areas from 1940 to 1946, the years for which reports on the basis of place of residence are available.

Among white mothers, hospitalization for delivery increased from 39.6 percent in 1935 to 87.1 percent in 1946. Most of this gain was through decrease in the proportion of births occurring at home and attended by a physician, which declined from 54 percent of all white live births in 1935 to

just over 11 percent in 1946. About 6 percent of white births in 1935 were unattended by a medical person, and less than 2 percent in 1946.

Hospitalization of nonwhite mothers went up relatively faster in the same period, from 18.2 percent of nonwhite live births in 1935 to 45.2 percent in 1946. Despite this proportionally larger gain, the percentage of hospitalization for nonwhite mothers in 1946 was just over half that

**Table 6.—Number and percent of live births by person in attendance and by race, in urban and rural areas: United States, 1946 and 1945**

(By place of residence)

Area and race	Number of births attended by—				Percent of births attended by—			
	Total	Physician		Non-medical person	Total	Physician		Non-medical person
		In hospital	In home			In hospital	In home	
1946								
United States ----	3, 288, 672	2, 708, 223	402, 759	177, 690	100. 0	82. 4	12. 2	5. 4
By race:								
White -----	2, 913, 645	2, 538, 882	327, 585	47, 178	100. 0	87. 1	11. 2	1. 6
Nonwhite -----	375, 027	169, 341	75, 174	130, 512	100. 0	45. 2	20. 0	34. 8
By area:								
Urban <sup>1</sup> -----	1, 977, 245	1, 828, 859	107, 474	40, 912	100. 0	92. 5	5. 4	2. 1
White -----	1, 783, 217	1, 694, 169	74, 263	14, 785	100. 0	95. 0	4. 2	0. 8
Nonwhite -----	194, 028	134, 690	33, 211	26, 127	100. 0	69. 4	17. 1	13. 5
Rural <sup>1</sup> -----	1, 311, 427	879, 364	295, 285	136, 778	100. 0	67. 1	22. 5	10. 4
White -----	1, 130, 428	844, 713	253, 322	32, 393	100. 0	74. 7	22. 4	2. 9
Nonwhite -----	180, 999	34, 651	41, 963	104, 385	100. 0	19. 1	23. 2	57. 7
1945								
United States ----	2, 735, 456	2, 155, 594	402, 890	176, 972	100. 0	78. 8	14. 7	6. 5
By race:								
White -----	2, 395, 563	2, 018, 929	329, 147	47, 487	100. 0	84. 3	13. 7	2. 0
Nonwhite -----	339, 893	136, 665	73, 743	129, 485	100. 0	40. 2	21. 7	38. 1
By area:								
Urban <sup>1</sup> -----	1, 618, 128	1, 469, 426	110, 305	38, 397	100. 0	90. 8	6. 8	2. 4
White -----	1, 452, 741	1, 361, 382	77, 425	13, 934	100. 0	93. 7	5. 3	1. 0
Nonwhite -----	165, 387	108, 044	32, 880	24, 463	100. 0	65. 3	19. 9	14. 8
Rural <sup>1</sup> -----	1, 117, 328	686, 168	292, 585	138, 575	100. 0	61. 4	26. 2	12. 4
White -----	942, 822	657, 547	251, 722	33, 553	100. 0	69. 7	26. 7	3. 6
Nonwhite -----	174, 506	28, 621	40, 863	105, 022	100. 0	16. 4	23. 4	60. 2

<sup>1</sup> "Urban" includes urban places having 2,500 inhabitants or more according to the 1940 population census; "rural" includes all other areas.

for white mothers in that year, and was lower than the percentage for white mothers nearly a decade earlier (48.2 in 1937). Were the present trend in hospitalization for delivery of nonwhite mothers to continue unaltered, it would still take a number of years for this group of mothers to reach the extent of hospitalization prevailing for the white group in 1946. Increases between 1935 and 1946 in the proportion of nonwhite mothers hospitalized came mainly through a decrease in the proportion of births unattended by a medical person, from 55.4 percent of nonwhite births in 1935 to 34.8 percent in 1946. Nevertheless, in 1946 there were 130,512 births to nonwhite mothers who were delivered without attendance by a physician.

(See table 6.) In the same period the proportion of nonwhite mothers delivered at home by a physician decreased much less sharply, from 26.4 percent in 1935 to 20.0 percent in 1946.

For women living in urban areas, 9 out of 10 of those who bore children in 1946 were hospitalized for delivery, as compared with about 3 out of 4 in 1940. For mothers living in rural areas the proportion of births in hospitals rose from 32.3 percent in 1940 to 67.1 percent in 1946. Concomitantly, for the rural areas births at home and attended by a physician dropped from 51.3 percent in 1940 to 22.5 percent in 1946, while births unattended by a medical person decreased less markedly, from 16.4 to 10.4 percent.

## Number of births, by person in attendance

The number rather than the proportion of live births variously attended gives a rough measure of the volume of medical and nonmedical attendance at delivery. Table 6 shows the number of births in 1945 and 1946 attended in hospital or home by physicians and those unattended by a medical person, among white and nonwhite residents of urban and rural areas.

Births attended by physicians numbered 3,110,982 in 1946. Of these, 2,708,223 were in hospitals and 402,759 were in homes. Births to residents of rural areas comprised 1,174,649 of the total attended by physicians, and births to residents of urban areas comprised 1,936,333.

Births unattended by a physician totaled more than 177,000 in 1946. The majority of these, 136,778, were to mothers living in rural areas. Among urban as well as rural residents, the number of nonwhite mothers who were unattended by a physician at the birth of their babies greatly exceeded the number of white mothers unattended. Among urban residents, 26,127 nonwhite births were unattended by a medical person, against 14,785 white. Among rural residents, 104,385 nonwhite births were unattended, against 32,393 white. The disparity between the two racial groupings is even more noticeable when the proportions of nonmedical attendance are compared—34.8 percent of the nonwhite births against 1.6 percent of the white. Thus the proportion of nonwhite births in the United States unattended by a medical person was about 20 times that of white births. Percentages of medical attendance for the different groups, for 1945 and 1946, are shown in table 6.

## Attendance at birth, by States

Wide differences among the States were found in the proportion of births in hospitals. The percentages, of all births, of white births, and of nonwhite births, for each State in 1946 are shown in table 7. In 24 States 90 percent or more of all births were in hospitals. In 3 States (Alabama, Mississippi, and South Carolina) less than half of the births were in hospitals. In 11 States, between half and three-quarters of the births were in hospitals; while in the remaining 11 States the proportions of births in hospitals were higher than 75 percent but fell short of the 90-percent-or-higher mark set by half the States.

Only 12 States reached 90 percent or over in hospitalization of nonwhite births in 1946, half as many States as reached that percentage in hospitalization of white births. As might be expected from the large difference on a national basis between the proportions of white and of nonwhite births in hospitals (87.1 percent for white and 45.2 percent for nonwhite), the proportions of births in hospitals in individual States were generally higher for white mothers than for nonwhite. In the Southern States, which have large Negro populations, the proportions of nonwhite births in hospitals are still very small—in fact, in several States in this region they remain below the national average for all races at the beginning of the reporting period (37 percent in 1935). The smallest percentage of nonwhite births in hospitals in 1946 was in Mississippi with 9.6, followed by Arkansas with 13.5, and South Carolina with 13.9. (See table 7.)

## MATERNAL MORTALITY

### Trend

Even though deaths of mothers in childbearing had already reached the low rate of 22.8 per 10,000 live births in 1944, notable improvement was made in 1945 and again in 1946. Against 6,369 in 1944, maternal deaths numbered 5,668 in 1945 and 5,153 in 1946. The maternal death rate for the country as a whole dropped by 9 percent in 1945, to 20.7. In 1946 an unprecedented reduction of 24 percent in a single year brought the rate to a new low of 15.7 maternal deaths per 10,000 live births.

From 1933, the first year in which all the States were included in the birth-registration area, to 1945 the maternal death rate was reduced by two-thirds, from 61.9 to 20.7. With the 1946 rate of 15.7 the reduction since 1933 was brought to 75 percent. Table 8 shows for each year from 1933 to 1946 the total number of maternal deaths and the maternal death rate, together with the number of deaths and the rate for white mothers and for nonwhite mothers. (See figure 2.)

The downward trend in maternal mortality since 1933 has been more pronounced for white mothers than for mothers in the nonwhite group. From 1933 to 1946 there was a 77-percent reduction in the rate for white mothers, from 56.4 to 13.1, against a 63-percent reduction in the rate for nonwhite mothers, from 96.7 to 35.9. As a result of the slower progress in reducing mortality in the nonwhite group of mothers, the relative

Table 7.—Percent of live births by person in attendance and by race: United States and each State, 1946

(By place of residence)

States	ALL BIRTHS: Percent attended by—			WHITE BIRTHS: Percent attended by—			NONWHITE BIRTHS: Percent attended by—		
	Physician, in—		Non-medical person	Physician, in—		Non-medical person	Physician, in—		Non-medical person
	Hospital	Home		Hospital	Home		Hospital	Home	
United States.....	82.4	12.2	5.4	87.1	11.2	1.6	45.2	20.0	34.8
Alabama.....	49.2	27.9	22.8	65.0	31.3	3.7	19.9	21.7	58.4
Arizona.....	85.3	8.1	6.6	87.7	7.9	4.4	68.2	9.9	22.0
Arkansas.....	53.6	29.9	16.6	65.1	32.1	2.8	13.5	22.1	64.3
California.....	97.1	2.5	0.5	97.5	2.0	0.4	89.8	9.1	1.1
Colorado.....	87.8	11.4	0.8	87.8	11.4	0.8	90.4	8.8	0.8
Connecticut.....	98.9	1.0	0.1	99.0	1.0	0.0	96.2	3.6	0.3
Delaware.....	88.7	5.6	5.7	94.1	4.6	1.3	57.1	11.4	31.5
District of Columbia.....	94.9	5.0	0.0	99.0	1.0	0.0	87.0	12.9	0.1
Florida.....	73.4	11.2	15.4	87.8	9.9	2.4	30.8	15.1	54.1
Georgia.....	59.6	18.2	22.2	78.6	18.4	3.0	23.0	17.8	59.1
Idaho.....	96.5	2.9	0.6	96.5	2.9	0.6	93.5	4.2	2.3
Illinois.....	93.2	6.7	0.1	94.2	5.8	0.1	80.8	18.8	0.4
Indiana.....	87.3	12.6	0.1	88.2	11.7	0.1	64.5	35.1	0.4
Iowa.....	92.2	7.6	0.2	92.2	7.6	0.2	90.3	8.0	1.7
Kansas.....	90.3	9.6	0.1	91.1	8.8	0.1	69.0	30.6	0.4
Kentucky.....	50.7	42.4	6.9	51.2	41.8	7.1	40.4	55.6	4.0
Louisiana.....	71.2	10.7	18.2	84.7	11.5	3.8	48.1	9.2	42.7
Maine.....	86.9	12.7	0.4	86.9	12.7	0.4	77.8	19.4	2.8
Maryland.....	80.7	14.8	4.5	86.6	11.8	1.5	54.5	28.0	17.5
Massachusetts.....	97.2	2.7	0.0	97.3	2.7	0.0	91.9	8.0	0.1
Michigan.....	93.4	6.3	0.3	94.1	5.7	0.2	81.9	16.9	1.2
Minnesota.....	95.2	4.3	0.5	95.3	4.3	0.4	90.2	3.8	6.0
Mississippi.....	38.6	24.5	36.9	69.3	27.7	3.0	9.6	21.4	69.0
Missouri.....	78.2	20.1	1.7	78.7	20.2	1.1	72.8	18.7	8.5
Montana.....	96.6	2.5	0.9	97.4	2.4	0.2	81.7	5.1	13.2
Nebraska.....	90.9	9.0	0.1	91.0	8.9	0.0	85.7	13.0	1.2
Nevada.....	96.1	3.2	0.6	97.4	2.5	0.2	80.9	12.6	6.5
New Hampshire.....	96.5	3.5	0.0	96.5	3.5	0.0	100.0	0.0	0.0
New Jersey.....	95.4	3.9	0.7	96.1	3.2	0.7	85.5	13.4	1.1
New Mexico.....	61.6	20.7	17.7	61.6	22.0	16.4	61.4	6.1	32.5
New York.....	96.9	2.8	0.3	97.1	2.7	0.2	94.4	4.6	1.1
North Carolina.....	61.6	24.9	13.5	75.7	21.3	2.9	27.7	33.5	38.8
North Dakota.....	90.9	8.0	1.2	91.1	8.1	0.9	83.0	2.7	14.3
Ohio.....	89.6	10.1	0.2	90.2	9.6	0.2	80.2	19.3	0.5
Oklahoma.....	77.7	19.5	2.8	80.8	18.3	0.8	52.8	28.5	18.7
Oregon.....	98.0	1.5	0.5	98.1	1.5	0.4	92.1	2.6	5.2
Pennsylvania.....	88.1	11.8	0.1	88.3	11.6	0.1	84.1	15.7	0.3
Rhode Island.....	95.2	4.6	0.1	95.3	4.6	0.1	92.9	6.8	0.3
South Carolina.....	49.7	20.8	29.5	76.2	21.3	2.5	13.9	20.2	66.0
South Dakota.....	90.0	8.5	1.5	90.9	8.5	0.5	68.8	8.2	23.0
Tennessee.....	60.7	31.4	7.9	64.7	31.1	4.3	39.0	33.1	27.9
Texas.....	72.3	15.6	12.1	75.8	14.7	9.5	45.5	22.6	31.9
Utah.....	96.1	3.8	0.1	96.1	3.8	0.1	96.3	3.3	0.4
Vermont.....	88.5	11.5	0.0	88.5	11.5	0.0	75.0	25.0	0.0
Virginia.....	65.3	21.6	13.1	75.6	20.9	3.5	31.0	24.1	45.0
Washington.....	98.2	1.6	0.2	98.2	1.6	0.2	95.2	2.4	2.4
West Virginia.....	54.4	42.6	2.9	55.8	41.2	3.0	28.8	68.6	2.7
Wisconsin.....	94.0	5.8	0.3	94.1	5.6	0.3	83.8	14.9	1.3
Wyoming.....	93.0	6.6	0.5	93.3	6.4	0.3	76.4	14.6	9.0

**Table 8.—Number of deaths from puerperal causes <sup>1</sup> and maternal death rates, by race: United States, 1933–46**

Year	Number of maternal deaths			Rate per 10,000 live births			Ratio of rates, nonwhite to white
	Total	White	Nonwhite	Total	White	Nonwhite	
1946-----	5, 153	3, 807	1, 346	15. 7	13. 1	35. 9	2. 7
1945-----	5, 668	4, 122	1, 546	20. 7	17. 2	45. 5	2. 6
1944-----	6, 369	4, 648	1, 721	22. 8	18. 9	50. 6	2. 7
1943-----	7, 197	5, 463	1, 734	24. 5	21. 1	51. 0	2. 4
1942-----	7, 267	5, 515	1, 752	25. 9	22. 2	54. 4	2. 5
1941-----	7, 956	5, 864	2, 092	31. 7	26. 6	67. 8	2. 5
1940-----	8, 876	6, 614	2, 262	37. 6	32. 0	77. 3	2. 4
1939-----	9, 151	6, 995	2, 156	40. 4	35. 3	76. 2	2. 2
1938-----	9, 953	7, 566	2, 387	43. 5	37. 7	84. 9	2. 3
1937-----	10, 769	8, 409	2, 360	48. 9	43. 6	85. 8	2. 0
1936-----	12, 182	9, 627	2, 555	56. 8	51. 2	97. 2	1. 9
1935-----	12, 544	10, 018	2, 526	58. 2	53. 1	94. 6	1. 8
1934-----	12, 859	10, 154	2, 705	59. 3	54. 4	89. 7	1. 6
1933-----	12, 885	10, 118	2, 767	61. 9	56. 4	96. 7	1. 7
Relative figures: Change from 1933 to 1946 (1933=100)							
1946-----	40	38	49	25	23	37	159

<sup>1</sup> Deaths due directly to diseases of pregnancy, childbirth, and the puerperium (Nos. 140 through 150 of the International List of Causes of Death, 1933 revision).

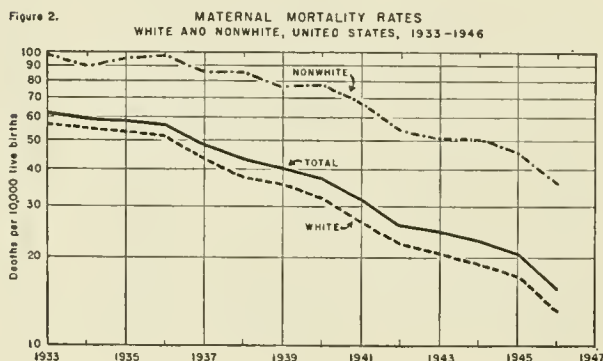
differences between white and nonwhite rates have increased rather than decreased. As may be seen in table 8, in 1933 maternal mortality for nonwhite mothers was about 70 percent higher than that for white mothers, in 1937 nearly 100 percent higher, in 1941 and 1942 about 150 percent higher, and in 1946 some 170 percent higher. The rate for nonwhite mothers in 1946, 35.9 deaths per 10,000 live births, has not prevailed on the average among white mothers in the United States since 1939. Thus, average progress for the non-white group has lagged some 7 years behind that for the white group.

## Maternal mortality in the States

Maternal mortality for the different States in 1945 ranged from 9.1 deaths per 10,000 live births in Wyoming to 38.0 in Mississippi. In 1946 the range in rates was somewhat narrower, from 9.2 in Connecticut and Minnesota to 31.4 in Mississippi. This greater-than-threelfold range still remaining, however, suggests how great the gain would be if conditions were equally favorable for all mothers throughout the country. In 1946, 28 States had maternal mortality rates below or at the national average of 15.7 for that year; 42 States in 1946 had rates below the national average for 1945, 20.7; and the 1946 rate in every State was below the national average of 31.7 in 1941, the last prewar year.

The number of maternal deaths and the death rates for individual States and geographic divisions in 1945 and in 1946 are shown in table 9. The number of deaths and the rates for the white and nonwhite groups are given for 1945. Because of large chance fluctuations in small populations at risk, rates for the nonwhite group are shown only for the 30 States in which there were 1,000 or more nonwhite births.

The rates in the nonwhite group are less stable whenever they are based on relatively small



numbers of mothers. Thus the lowest nonwhite rate in 1945, that of 15.9 in Massachusetts, was even lower than the rate of 18.3 for the white mothers in that State. The standard error, based on 1,259 nonwhite and 75,805 white births in Massachusetts, for the small difference of 2.4 between the nonwhite and white rates is several times the difference itself. The lower mortality for nonwhite mothers in Massachusetts in 1945, therefore, has no real significance; this is further confirmed by the fact that in the preceding year, 1944, maternal mortality in Massachusetts for nonwhite mothers, 73.2, far exceeded the more stable rate for the white mothers, 17.0.

In the United States as a whole the relative frequency of death from puerperal causes in 1945 was 2.6 times as great among nonwhite mothers as among white mothers—45.5 maternal deaths per 10,000 live births in the nonwhite group against 17.2 in the white group. Among the selected States shown individually in table 9, the excess of mortality for nonwhite mothers over that for white mothers varied from relatively small differences, as in West Virginia and California, to amounts that in themselves were two and three times larger than the mortality rates for white mothers. Thus in New Jersey, Ohio, South Carolina, Florida, Tennessee, Oklahoma, and Arizona, rates for mothers in the nonwhite group were approximately three times those for white mothers, and in the District of Columbia the rate for nonwhite mothers was four times that for white mothers.

### Maternal mortality by age of mother

Variation in maternal mortality with age of the mothers is pronounced and has persisted in general pattern for many years.<sup>6</sup> Risks in childbearing are lowest among mothers 20 to 24 years of age, and increase progressively for younger as well as older age groups. For mothers 20 to 24 years of age the maternal death rate per 10,000 live births was 10.3 in 1946 and 13.2 in 1945. (See table 10.) For mothers 15 to 19 years old the rates in both years were still below the rates for all ages; but for the youngest age group, 10 to 14 years, they were far above, with 46.2 in 1946 and 64.4 in 1945.

For the age group 25 to 29 the rates in both years also were below the rates for all ages. But among mothers 30 years old and older the rates increased from age group to age group in both years, and among mothers 45 and over reached peaks with more than 100 deaths per 10,000 live births. It is gratifying that from 1945 to 1946 maternal mortality has again decreased in all age groups except the oldest—and the slight increase for mothers 45 years old and older is in all likelihood a mere chance fluctuation.

With minor deviations, this pattern of age difference in maternal mortality was evident in 1945 among nonwhite as well as white mothers, although at each age level the rate for the nonwhite mothers exceeded that for the white. The variation for the nonwhite group differed slightly from that for the white group in that the lowest nonwhite rate for 1945 was for the age group 15 to 19 years whereas for white mothers the most favorable childbearing years were 20 to 24. This difference is probably more apparent than real because of relatively large chance fluctuations in age-specific rates based on single years. On the basis of average experience, 1943–45, the ages of 20 to 24 years were the most favorable from the standpoint of minimum risks in childbearing for white and nonwhite alike.

Another difference between the white and nonwhite mothers, as shown in table 10, is in the extent of childbearing at early ages. Of 2,395,563 white live births in 1945, 1,184 were to mothers in the youngest age group, 10 to 14 years, or less than 0.5 out of each thousand white births. Of 339,893 nonwhite live births, 2,389 were to mothers in the 10- to 14-year group, or 7 out of each thousand nonwhite births—a proportion 14 times that for the white births (even the number of nonwhite births for this age group was greater than the number of white births). This difference continues in the next age group, 15 to 19 years, though not to the same degree. The extent of childbearing among nonwhite females in these age groups has a bearing not only on mortality from puerperal causes but also on other pathological conditions such as tuberculosis and rheumatic heart diseases, as reflected in the high death rates of the young nonwhite females as compared with the males in this age group.<sup>7</sup>

<sup>6</sup> "Maternal Mortality by Race, Age, and Urban and Rural Areas, United States, Each Division and State, 1945," Vital Statistics—Special Reports, Vol. 27, No. 13, February 2, 1948, National Office of Vital Statistics.

<sup>7</sup> See *Childhood Mortality From Rheumatic Fever and Heart Disease*, by George Wolff, Children's Bureau Publication 322, 1948.

## Causes of maternal deaths

Of the 5,668 maternal deaths in 1945, a little more than a third, 35.3 percent, were attributed to puerperal infection (Nos. 140, 142a, 145A, and 147 of the International List of Causes of Death, 1938 revision); a little less than a third, 30.5 percent, were attributed to hemorrhage, trauma, or shock (Nos. 141b, 142b, 143, 146, and 149); about a fourth, 24.8 percent, were attributed to puerperal toxemia (Nos. 141a, 141c, 144, and 148); and a little less than a tenth, 9.4 percent, were attributed to other puerperal causes (Nos. 141d, 141e, 141f, 145B, and 150). Deaths from each of the main causes, the relative importance (percentage distribution) of the causes, and death rates in 1945 and 1944 are shown in table 11.

This tabulation of the main puerperal causes of death according to termination of gestation shows the important facts that in 1945 the great majority, two-thirds, of all deaths following

abortion (Nos. 140 and 141 of the International List) were caused by infection, three-fourths of the deaths during ectopic gestation (No. 142) were caused by hemorrhage, trauma, or shock, and almost two-thirds of the deaths before delivery (Nos. 143, 144, and 145) were caused by toxemia. For the period during and after delivery (Nos. 146 through 150), deaths from the three main causes were more evenly distributed, with 36.3 percent due to hemorrhage, trauma, or shock, 32.3 percent to infection, and 22.3 percent to toxemia.

The majority of the maternal deaths in 1945 occurred during or after delivery, 3,630 out of a total of 5,668, or 64 percent; 888 or 16 percent were due to abortion and 334 or 6 percent to ectopic gestation; and 816 or 14 percent occurred in pregnancy before delivery. It is noteworthy that the relative weight of deaths due to ectopic gestation among all maternal deaths has increased somewhat in recent years. Such deaths were 4

**Table 9.—Number of deaths from puerperal causes<sup>1</sup> and maternal death rates in 1946, and by race in 1945: United States, each division and State.**

(By place of residence. Rates per 10,000 live births)

Area	1946		1945						Ratio of rates, nonwhite to white
	Number	Rate	Number of deaths			Death rate			
			Total	White	Non-white	Total	White	Non-white	
United States.....	5, 153	15. 7	5, 668	4, 122	1, 546	20. 7	17. 2	45. 5	2. 6
Geographic Divisions:									
New England.....	246	12. 8	267	257	10	17. 1	16. 7	38. 6	2. 3
Middle Atlantic.....	799	13. 3	920	787	133	18. 9	17. 3	43. 5	2. 5
East North Central.....	838	13. 0	833	725	108	16. 2	14. 9	38. 1	2. 6
West North Central.....	372	12. 3	433	394	39	17. 4	16. 4	43. 1	2. 6
South Atlantic.....	1, 028	20. 8	1, 115	530	585	25. 9	17. 3	47. 2	2. 7
East South Central.....	689	23. 6	754	398	356	30. 1	22. 1	50. 6	2. 3
West South Central.....	612	17. 7	716	463	253	24. 0	19. 2	44. 3	2. 3
Mountain.....	210	17. 8	224	193	31	22. 8	20. 8	58. 7	2. 8
Pacific.....	359	11. 9	406	375	31	16. 0	15. 6	24. 5	1. 6
New England:									
Maine.....	32	15. 7	41	40	1	24. 6	24. 0	( <sup>2</sup> )	-----
New Hampshire.....	14	12. 6	15	15	—	18. 0	18. 0	( <sup>2</sup> )	-----
Vermont.....	12	14. 4	12	12	—	17. 5	17. 5	( <sup>2</sup> )	-----
Massachusetts.....	126	13. 4	141	139	2	18. 3	18. 3	15. 9	0. 9
Rhode Island.....	24	14. 3	19	18	1	13. 9	13. 5	( <sup>2</sup> )	-----
Connecticut.....	38	9. 2	39	33	6	11. 6	10. 1	( <sup>2</sup> )	-----
Middle Atlantic:									
New York.....	343	12. 0	412	358	54	17. 6	16. 2	40. 2	2. 5
New Jersey.....	124	13. 0	124	97	27	16. 0	13. 5	48. 8	3. 6
Pennsylvania.....	332	15. 2	384	332	52	22. 1	20. 5	44. 7	2. 2

See footnotes at end of table.

Area	1946		1945						
	Number	Rate	Number of deaths			Death rate			Ratio of rates, nonwhite to white
			Total	White	Non-white	Total	White	Non-white	
East North Central:									
Ohio.....	214	12.6	235	196	39	17.7	15.7	49.5	3.2
Indiana.....	112	13.1	113	103	10	16.5	15.7	35.4	2.3
Illinois.....	237	13.6	235	200	35	16.9	15.6	34.6	2.2
Michigan.....	167	12.0	165	141	24	14.6	13.3	35.2	2.6
Wisconsin.....	108	14.4	85	85	—	13.8	14.0	(2)	-----
West North Central:									
Minnesota.....	62	9.2	75	73	2	13.7	13.5	(2)	-----
Iowa.....	59	10.5	79	75	4	17.6	16.8	(2)	-----
Missouri.....	131	16.2	150	125	25	22.8	20.7	48.2	2.3
North Dakota.....	16	10.5	14	13	1	10.6	10.1	(2)	-----
South Dakota.....	15	10.3	16	14	2	12.8	11.9	(2)	-----
Nebraska.....	29	10.3	36	35	1	14.9	14.8	(2)	-----
Kansas.....	60	15.1	63	59	4	18.7	18.2	32.2	1.8
South Atlantic:									
Delaware.....	9	13.2	19	14	5	31.8	27.6	(2)	-----
Maryland.....	56	11.1	64	45	19	15.0	13.0	23.3	1.8
Dist. of Columbia.....	31	16.7	24	8	16	14.9	7.4	30.3	4.1
Virginia.....	124	16.3	142	80	62	21.2	15.9	36.9	2.3
West Virginia.....	73	15.0	66	62	4	16.9	16.8	18.7	1.1
North Carolina.....	203	20.2	248	111	137	28.4	18.7	49.1	2.6
South Carolina.....	148	27.4	169	47	122	34.2	17.6	53.8	3.1
Georgia.....	225	26.3	242	98	144	32.3	20.6	52.6	2.6
Florida.....	159	30.0	141	65	76	29.5	18.5	60.4	3.3
East South Central:									
Kentucky.....	144	19.9	155	136	19	25.5	23.6	58.7	2.5
Tennessee.....	142	18.4	153	96	57	23.6	17.7	53.0	3.0
Alabama.....	209	26.2	240	107	133	34.1	24.3	50.7	2.1
Mississippi.....	194	31.4	206	59	147	38.0	24.5	48.7	2.0
West South Central:									
Arkansas.....	95	21.0	116	69	47	29.3	23.4	46.4	2.0
Louisiana.....	139	20.2	145	67	78	25.1	19.0	34.5	1.8
Oklahoma.....	83	16.5	97	67	30	22.5	17.5	62.5	3.6
Texas.....	295	16.2	358	260	98	22.7	18.8	49.9	2.7
Mountain:									
Montana.....	18	14.0	17	16	1	16.0	16.0	(2)	-----
Idaho.....	22	16.0	23	21	2	20.0	18.6	(2)	-----
Wyoming.....	10	16.2	5	5	—	9.1	9.5	(2)	-----
Colorado.....	57	19.3	56	54	2	23.8	23.6	(2)	-----
New Mexico.....	37	20.5	57	46	11	37.2	32.8	87.0	2.7
Arizona.....	35	21.4	40	27	13	30.0	23.4	72.3	3.1
Utah.....	25	13.7	21	20	1	13.4	13.0	(2)	-----
Nevada.....	6	18.3	5	4	1	17.5	15.2	(2)	-----
Pacific:									
Washington.....	62	11.9	76	70	6	17.1	16.2	43.4	2.7
Oregon.....	31	10.3	32	31	1	13.3	13.2	(2)	-----
California.....	266	12.2	298	274	24	16.2	15.8	22.4	1.4

<sup>1</sup> Deaths due directly to diseases of pregnancy, childbirth, and the puerperium. (Nos. 140 through 150 of the International List of Causes of Death, 1938 revision).

<sup>2</sup> Not shown because number of nonwhite births was less than 1,000 and the rates are subject to large chance errors. Number of nonwhite births in these States: 647 in Colorado, 933 in Connecticut, 917 in Delaware, 213 in Idaho, 350 in Iowa, 49 in Maine, 735 in Minnesota, 627 in Montana, 543 in Nebraska, 211 in Nevada, 14 in New Hampshire, 328 in North Dakota, 577 in Oregon, 333 in Rhode Island, 674 in South Dakota, 274 in Utah, 5 in Vermont, 733 in Wisconsin, and 242 in Wyoming.

Together in these 19 States there were 8,405 nonwhite births with 31 maternal deaths to residents of the States, which gives a maternal death rate of 36.9 per 10,000 live births.

Table 10a.—Maternal death rates, maternal deaths, and live births by age of mother: United States, 1946 and 1945

Age of mother	1946			1945		
	Rate per 10,000 live births	Maternal deaths	Live births	Rate per 10,000 live births	Maternal deaths	Live births
Total <sup>1</sup> -----	15. 7	5, 153	3, 288, 672	20. 7	5, 668	2, 735, 456
10 to 14 years-----	46. 2	16	3, 462	64. 4	23	3, 573
15 to 19 years-----	12. 8	413	322, 381	18. 1	509	280, 997
20 to 24 years-----	10. 3	1, 082	1, 051, 289	13. 2	1, 051	796, 849
25 to 29 years-----	12. 5	1, 170	936, 466	15. 3	1, 159	755, 365
30 to 34 years-----	18. 3	1, 080	589, 122	23. 8	1, 268	532, 239
35 to 39 years-----	31. 4	932	296, 411	40. 0	1, 123	280, 641
40 to 44 years-----	52. 9	397	75, 039	63. 8	470	73, 720
45 and over-----	108. 8	61	5, 609	105. 5	61	5, 782

<sup>1</sup> Includes ages not stated.

Table 10b.—Maternal death rates, maternal deaths, and live births by age of mother and by race: United States, 1945

Age of mother	White			Nonwhite			Ratio of rates, nonwhite to white
	Rate per 10,000 live births	Maternal deaths	Live births	Rate per 10,000 live births	Maternal deaths	Live births	
Total <sup>1</sup> -----	17. 2	4, 122	2, 395, 563	45. 5	1, 546	339, 893	2. 6
10 to 14 years-----	25. 3	3	1, 184	83. 7	20	2, 389	3. 3
15 to 19 years-----	14. 5	302	208, 413	28. 5	207	72, 584	2. 0
20 to 24 years-----	10. 6	734	694, 178	30. 9	317	102, 671	2. 9
25 to 29 years-----	12. 8	877	682, 992	39. 0	282	72, 373	3. 0
30 to 34 years-----	19. 2	931	484, 002	69. 9	337	48, 237	3. 6
35 to 39 years-----	34. 1	856	250, 674	89. 1	267	29, 967	2. 6
40 to 44 years-----	57. 6	375	65, 087	110. 0	95	8, 633	1. 9
45 and over-----	91. 3	44	4, 821	176. 9	17	961	1. 9

<sup>1</sup> Includes ages not stated.

percent of all maternal deaths in 1940, 5 percent in 1944, and 6 percent in 1945. This increase in relative importance may be explained by the fact that ectopic gestation always requires an immediate and major operation, the results of which may be influenced only secondarily by the recent introduction of the sulfa drugs and penicillin otherwise so successful in the treatment of infections. Most deaths during or after ectopic gestation were caused by hemorrhage, trauma, or shock.<sup>8</sup>

<sup>8</sup> See the recent clinical report, "Ectopic Pregnancy," by W. D. Beacham, C. G. Collins, E. P. Thomas, and D. W. Beacham, in the *Journal of the American Medical Association* 136: 365-371, February 7, 1948.

From 1933 to 1946 the downward trend of maternal mortality has been about equally marked for each of the three main causes—a 77-percent decrease in the rate for puerperal infection (from 23.4 to 5.4 per 10,000 live births), a 76-percent decline in the rate for hemorrhage, trauma, or shock (20.3 to 4.8), and a 73-percent reduction in the rate for puerperal toxemia (14.7 to 3.9). Rates for the main puerperal causes, 1933 to 1946, by race, are shown in table 12.

The fairly uniform decrease in rates for the three main causes of maternal deaths suggests that a variety of interrelated factors and favorable developments have contributed to the lowering of

**Table 11.—Maternal deaths, percent distribution, and death rates for main puerperal causes in relation to termination of gestation: United States, 1945 and 1944**

Cause of death	Total		Abortion <sup>1</sup>		Ectopic gestation		Before delivery		During or after delivery	
	1945	1944	1945	1944	1945	1944	1945	1944	1945	1944
Maternal deaths										
All causes-----	5, 668	6, 369	888	996	334	345	816	915	3, 630	4, 113
Puerperal infection-----	2, 000	2, 276	587	701	86	63	156	151	1, 171	1, 361
Puerperal toxemia-----	1, 405	1, 607	80	67	—	—	515	589	810	951
Hemorrhage, trauma, or shock-----	1, 729	1, 897	103	115	248	282	60	69	1, 318	1, 431
Other puerperal causes-----	534	589	118	113	—	—	85	106	331	370
Percent distribution										
All causes-----	100	100	100	100	100	100	100	100	100	100
Puerperal infection-----	35. 3	35. 7	66. 1	70. 4	25. 7	18. 3	19. 1	16. 5	32. 3	33. 1
Puerperal toxemia-----	24. 8	25. 2	9. 0	6. 7	0	0	63. 1	64. 4	22. 3	23. 1
Hemorrhage, trauma, or shock-----	30. 5	29. 8	11. 6	11. 5	74. 3	81. 7	7. 4	7. 5	36. 3	34. 8
Other puerperal causes-----	9. 4	9. 2	13. 3	11. 3	0	0	10. 4	11. 6	9. 1	9. 0
Rate per 10,000 live births										
All causes-----	20. 7	22. 8	3. 2	3. 6	1. 2	1. 2	3. 0	3. 3	13. 3	14. 7
Puerperal infection-----	7. 3	8. 1	2. 1	2. 5	0. 3	0. 2	0. 6	0. 5	4. 3	4. 9
Puerperal toxemia-----	5. 1	5. 7	0. 3	0. 2	0	0	1. 9	2. 1	3. 0	3. 4
Hemorrhage, trauma, or shock-----	6. 3	6. 8	0. 4	0. 4	0. 9	1. 0	0. 2	0. 2	4. 8	5. 1
Other puerperal causes-----	2. 0	2. 1	0. 4	0. 4	0	0	0. 3	0. 4	1. 2	1. 3

<sup>1</sup> Oestation less than 28 weeks.

risks to mothers in childbearing. Important among these have been improvements in obstetrical practice as well as extended prenatal care, which has been increasingly recognized as an important safeguard for the health of the mother. Growing knowledge of the effective use of transfusions in early treatment of hemorrhage and shock, and of the sulfonamides and antibiotics in cases of infection have played a role in making childbearing safer. The number of practitioners and specialists qualified to care for maternity cases has increased. At the same time the increase in hospitalization for delivery and improvements in hospital facilities have promoted better care. Public health agencies have done much to extend

the availability of medical safeguards to mothers on a community-wide basis.

The smallest gain from 1933 to 1946 was in the rate for "other puerperal causes," which covers abortion unassociated with infection, self-induced abortion, and abortion induced by others for nontherapeutic reasons (Nos. 141d, 141e, and 141f of the International List), as well as other diseases and accidents of pregnancy (No. 145B) and certain other conditions (No. 150). The rate for these causes decreased from 3.5 per 10,000 live births in 1933 to 1.5 in 1946, or 57 percent, but nevertheless not as markedly as the rates for the three main groups of causes. For white mothers the reduction was greater—67 percent,

Table 12.—Maternal death rates for main puerperal causes, <sup>1</sup> by race: United States, 1933–46 <sup>2</sup>

[Rates per 10,000 live births]

Year and race	All puerperal causes (140–150)	Puerperal infection (140, 142a, 145a, 147)	Puerperal toxemia (141a, c, 144, 148)	Hemorrhage, trauma, or shock (141b, 142b, 143, 146, 149)	Other puerperal causes (141d, e, f, 145b, 150)
All races:					
1946.....	15.7	5.4	3.9	4.8	1.5
1945.....	20.7	7.3	5.1	6.3	2.0
1944.....	22.8	8.1	5.7	6.8	2.1
1943.....	24.5	8.8	6.6	6.8	2.3
1942.....	25.9	10.0	6.6	7.2	2.0
1941.....	31.7	13.1	8.1	8.5	1.9
1940.....	37.6	16.6	9.5	9.3	2.1
1939.....	40.4	18.4	9.9	9.9	2.3
1938.....	43.5	14.6	11.0	15.1	2.8
1937.....	48.9	16.9	12.3	16.8	2.9
1936.....	56.8	21.4	13.0	19.1	3.3
1935.....	58.2	24.0	12.6	18.4	3.2
1934.....	59.3	23.6	13.8	18.7	3.2
1933.....	61.9	23.4	14.7	20.3	3.5
White:					
1946.....	13.1	4.6	3.1	4.2	1.2
1945.....	17.2	6.2	4.0	5.5	1.5
1944.....	18.9	6.8	4.6	5.9	1.6
1943.....	21.1	7.7	5.4	6.1	1.9
1942.....	22.2	8.7	5.4	6.5	1.6
1941.....	26.6	11.0	6.4	7.7	1.5
1940.....	32.0	14.5	7.5	8.3	1.7
1939.....	35.3	16.2	8.1	9.1	1.8
1938.....	37.7	12.2	9.1	13.7	2.7
1937.....	43.6	14.8	10.5	15.5	2.9
1936.....	51.2	19.2	10.9	17.8	3.2
1935.....	53.1	21.9	10.9	17.1	3.2
1934.....	54.4	21.8	11.9	17.4	3.2
1933.....	56.4	21.5	12.5	18.7	3.6
Nonwhite:					
1946.....	35.9	11.8	10.4	9.9	3.8
1945.....	45.5	15.3	12.9	12.4	4.8
1944.....	50.6	17.9	13.9	13.4	5.4
1943.....	51.0	17.9	15.9	12.1	5.1
1942.....	54.4	20.1	16.4	12.8	5.2
1941.....	67.8	28.4	20.1	14.7	4.6
1940.....	77.3	31.6	24.1	16.1	5.6
1939.....	76.2	33.4	22.1	15.1	5.6
1938.....	84.9	31.2	24.9	25.2	3.6
1937.....	85.8	31.8	25.2	25.9	2.9
1936.....	97.2	37.1	27.6	28.7	3.8
1935.....	94.6	38.6	25.3	27.4	3.2
1934.....	89.7	34.5	25.2	26.7	3.2
1933.....	96.7	35.6	28.2	30.0	2.9

<sup>1</sup> Numbers under causes of death are those of the International List of Causes of Death, 1938 revision.<sup>2</sup> For the years 1933 to 1938, the causes of maternal deaths are adjusted to the cause groups of the International List of Causes of Death, 1938 revision. For 1939 to 1941 all "Other diseases and accidents of pregnancy" (145a and b) are included in "Puerperal infection," since they are not separated for these years in the census reports.

from 3.6 in 1933 to 1.2 in 1946. For nonwhite mothers the rate increased rather than decreased, from 2.9 in 1933 to 3.8 in 1946. Thus in 1933 the rate for nonwhite mothers was lower than for white, 2.9 against 3.6 per 10,000 live births, but in 1946 the rate for nonwhite mothers was more than three times that for white mothers, 3.8 against 1.2. It is doubtful whether the trend of the rate for nonwhite mothers accurately reflects changes in the underlying conditions. It is probable that with wider extension of medical services among the nonwhite group during the last decade and a half reporting of the cause of death has improved and a larger proportion of deaths associated with puerperal conditions are identified than was the case among nonwhite mothers in former years.

## INFANT MORTALITY

### Trend

The trend of infant mortality in the United States from 1933 to 1946 is shown in table 13 and figure 3. In that period, during which all the States were included in the birth-registration area of continental United States, the rate per 1,000 live births declined from 58.1 to 33.8 for all infants, or 42 percent. The rate for white infants dropped from 52.8 to 31.8, or 40 percent, and that for nonwhite infants from 91.3 to 49.5, or 46 percent. Thus the percentage reduction in mortality was somewhat larger for the nonwhite babies, though their death rate is still considerably higher than the rate for white babies. The racial differential (ratio of rates, nonwhite to white) has hardly changed throughout the period—1.7 in 1933 and 1.6 in 1946.

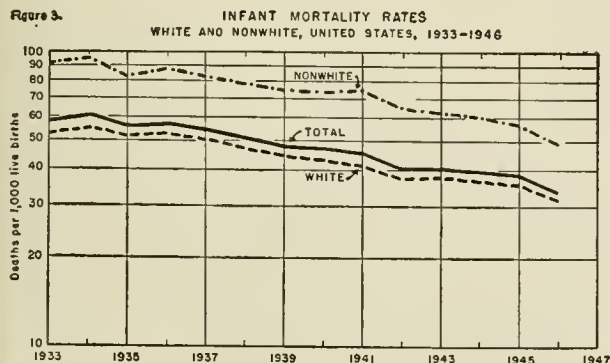


Table 13.—Infant death rates by race: United States, 1933-46

(Exclusive of stillbirths. Deaths under 1 year per 1,000 live births)

Year	Total	White	Non-white	Ratio of rates, non-white to white
1946-----	33.8	31.8	49.5	1.6
1945-----	38.3	35.6	57.0	1.6
1944-----	39.8	36.9	60.3	1.6
1943-----	40.4	37.5	62.5	1.7
1942-----	40.4	37.3	64.6	1.7
1941-----	45.3	41.2	74.8	1.8
1940-----	47.0	43.2	73.8	1.7
1939-----	48.0	44.3	74.2	1.7
1938-----	51.0	47.1	79.1	1.7
1937-----	54.4	50.3	83.2	1.7
1936-----	57.1	52.9	87.6	1.7
1935-----	55.7	51.9	83.2	1.6
1934-----	60.1	54.5	94.4	1.7
1933-----	58.1	52.8	91.3	1.7

### Infant deaths, by race and sex

Infant deaths numbered 111,063 in 1946, 104,684 in 1945, and 111,127 in 1944. To some extent, particularly in 1946, changes in the number of deaths is explainable by changes in the number of live births—a decrease from 1944 to 1945 and a large increase from 1945 to 1946. Although the number of deaths under 1 year was greater in 1946 than in 1945, the death rate was lower, 33.8 per 1,000 live births in 1946 against 38.3 in 1945, as conventionally computed.<sup>9</sup>

The number of deaths under 1 year, by race and sex, and the corresponding rates for 1946 and 1945 for the race-sex groups are given in table 14.

Altogether in 1946 there were 92,510 deaths of white infants and 18,553 of nonwhite infants, the corresponding rates per 1,000 live births being 31.8 and 49.5. Among the whites there were 53,704 male and 38,806 female deaths; among the nonwhites, 10,244 male and 8,309 female. The

<sup>9</sup> The 1946 rate adjusted to relate infant deaths in 1946 to the corresponding number of births, partly in the same year and partly in the preceding year, rather than to the number of births in the calendar year 1946, was 34.6, and the similarly adjusted rate for 1945 was 38.1. The adjusted rate for 1946 was appreciably higher than the unadjusted rate of 33.8, because of the large increase in births in 1946 of more than half a million over the number of births in 1945.

Table 14.—Infant mortality by race and sex: United States, 1946 and 1945

(Exclusive of stillbirths)

Race and sex	Number of deaths under 1 year		Rate per 1,000 live births		Ratio of rates, non-white to white	
	1946	1945	1946	1945	1946	1945
All races:						
Both sexes.....	111, 063	104, 684	33. 8	38. 3	1. 6	1. 6
Male.....	63, 948	59, 998	37. 8	42. 7	1. 5	1. 6
Female.....	47, 115	44, 686	29. 5	33. 6	1. 6	1. 6
White:						
Both sexes.....	92, 510	85, 295	31. 8	35. 6	-----	-----
Male.....	53, 704	49, 156	35. 8	39. 9	-----	-----
Female.....	38, 806	36, 139	27. 5	31. 1	-----	-----
Nonwhite:						
Both sexes.....	18, 553	19, 389	49. 5	57. 0	-----	-----
Male.....	10, 244	10, 842	54. 0	63. 2	-----	-----
Female.....	8, 309	8, 547	44. 8	50. 8	-----	-----
Relative figures (1945=100)						
All races:						
Both sexes.....	106	100	88	100	100	100
Male.....	107	100	89	100	94	100
Female.....	105	100	88	100	100	100
White:						
Both sexes.....	108	100	89	100	-----	-----
Male.....	109	100	90	100	-----	-----
Female.....	107	100	88	100	-----	-----
Nonwhite:						
Both sexes.....	96	100	87	100	-----	-----
Male.....	94	100	85	100	-----	-----
Female.....	97	100	88	100	-----	-----

considerable excess of male over female deaths under 1 year is only partly explained by the well-known fact that more male than female babies are born each year. This sex ratio at birth varies in the United States, for all births, between 105 and 106 males to 100 females (the ratio is somewhat lower for the nonwhite births). Even when the deaths of male and female infants are related to the respective number of births in each sex, the boys have a distinctly higher infant death rate than the girls, in white and nonwhite groups alike. As a matter of fact, the higher mortality of the male starts with the first day of life.

#### Age of infants at death, and stillbirths

Of the 111,063 deaths under 1 year in 1946, 37,603 or more than a third occurred on the first day (the percentage has again increased over the preceding year and is appreciably higher for the white group than for the nonwhite; see table 15).

Thus, mortality during the first day of life is extremely high. When computed as a rate per 1,000 live births in the calendar year, it was 11.4 in 1946 and 11.2 in 1945. For each year the rate for the first day was higher than the rate for the other 6 days of the first week of life, which was 8.6 in 1946 and 8.5 in 1945. (For race differences see table 15.)

Neonatal deaths (deaths under 1 month) numbered 79,079 in 1946. This was 71 percent of all infant deaths in 1946, compared with a corresponding percentage of 63.6 in 1945. In 1946 the rate of death in the first month of life was 24.0 per 1,000 live births; the rate of death in the second month of life was only 2.2; and the rate for the second through the twelfth months combined was only 9.7. Death rates for nonwhite babies are higher than those for white babies in the first month of life, and the difference increases in the succeeding months of infant life.

Table 15.—Infant mortality by age and race, and stillbirths by race: United States, 1946 and 1945

Age at death	1946			1945		
	Total	White	Nonwhite	Total	White	Nonwhite
Number						
Deaths under 1 year-----	111, 063	92, 510	18, 553	104, 684	85, 295	19, 389
Under 1 day-----	37, 603	32, 564	5, 039	30, 674	26, 354	4, 320
1 day to under 1 week-----	28, 445	24, 334	4, 111	23, 318	19, 494	3, 824
1 week to under 1 month-----	13, 031	10, 349	2, 682	12, 601	9, 867	2, 734
Under 1 month-----	79, 079	67, 247	11, 832	66, 593	55, 715	10, 878
1 month to under 1 year-----	31, 984	25, 263	6, 721	38, 091	29, 580	8, 511
Percent distribution						
Deaths under 1 year-----	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
Under 1 day-----	33. 9	35. 2	27. 2	29. 3	30. 9	22. 3
1 day to under 1 week-----	25. 6	26. 3	22. 2	22. 3	22. 9	19. 7
1 week to under 1 month-----	11. 7	11. 2	14. 5	12. 0	11. 6	14. 1
Under 1 month-----	71. 2	72. 7	63. 8	63. 6	65. 3	56. 1
1 month to under 1 year-----	28. 8	27. 3	36. 2	36. 4	34. 7	43. 9
Rate per 1,000 live births						
Deaths under 1 year-----	33. 8	31. 8	49. 5	38. 3	35. 6	57. 0
Under 1 day-----	11. 4	11. 2	13. 4	11. 2	11. 0	12. 7
1 day to under 1 week-----	8. 6	8. 4	11. 0	8. 5	8. 1	11. 3
1 week to under 1 month-----	4. 0	3. 6	7. 2	4. 6	4. 1	8. 0
Under 1 month-----	24. 0	23. 1	31. 5	24. 3	23. 3	32. 0
1 month to under 1 year-----	9. 7	8. 7	17. 9	13. 9	12. 3	25. 0
Number						
Stillbirths <sup>1</sup> -----	74, 849	59, 494	15, 355	65, 513	51, 242	14, 271
Ratio per 1,000 live births						
Stillbirths <sup>1</sup> -----	22. 8	20. 4	40. 9	23. 9	21. 4	42. 0

<sup>1</sup> Includes only stillbirths for which period of uterogestation was stated to be 20 weeks (or 5 months) or more, or was not stated.

In considering how to reduce infant mortality further, it is important to note that mortality in the first month has not decreased to the same degree as mortality in the succeeding months of infancy. Although neonatal mortality has been reduced appreciably over a long period (during the last 2 decades, for instance, from 37.8 in 1925 to 24.0 in 1946), the percentage decrease lags behind that of mortality for infants more than

a month old. The decline from 1925 to 1946 in mortality of infants more than a month old was more than two-thirds, from 33.8 to 9.7; the decline in mortality in the first month was only a little more than a third, from 37.8 to 24.0; the decline in mortality on the first day was only about a fourth, from 15.0 to 11.4. The relative weight of neonatal deaths among all infant deaths, therefore, has increased steadily during these years.

**Table 16.—Infant death rates by age: United States birth-registration States, 1946 and quinquennial years, 1925–45**

(Exclusive of stillbirths. Deaths under 1 year per 1,000 live births)

Age at death	1946	1945	1940	1935	1930	1925	Percent decline, 1925 to 1946
Under 1 year-----	33.8	38.3	47.0	55.7	64.6	71.7	52.9
Under 1 day-----	11.4	11.2	13.9	15.0	15.0	15.0	24.0
Under 1 month-----	24.0	24.3	28.8	32.4	35.7	37.8	36.5
1 month to under 1 year-----	9.7	13.9	18.3	23.3	28.9	33.8	71.3

The proportion was 53 percent in 1925, 55 percent in 1930, 58 percent in 1935, 61 percent in 1940, approaching two-thirds in 1945, and more than 71 percent in 1946. The rates in 5-year intervals from 1925 to 1945, and in 1946, are given in table 16, together with the percent decline over the whole period.

Another important consideration in further reducing loss of infant life is the high stillbirth rate, which has not changed greatly in recent years. Stillbirth statistics are not as completely reported as are data on infants who die after birth. The data on stillbirths, therefore, must be taken as minimum statements of loss of life. Furthermore, the definitions of stillbirths vary from State to State.<sup>10</sup> When stillbirths for which the period of gestation was 5 months or more are related in the same way as infant deaths to the live births of the calendar year, a rate (or ratio) of 22.8 is obtained for 1946, and of 23.9 for 1945. These rates correspond to 74,849 and 65,513 stillbirths in the respective years, figures almost as large as those for deaths in the entire neonatal period. (See table 15.) Thus the total number of lives lost because of stillbirths and neonatal deaths amounted to more than 150,000 in 1946 and more than 130,000 in 1945, or 46.8 and 48.2 per 1,000 live births. It will be noted also from table 15 that the racial differential is, higher for stillbirths than for neonatal deaths; in each year there were twice as many stillbirths per 1,000 live births for nonwhite mothers as for white mothers. *To reduce this great loss of life during the prenatal and neonatal periods is at the present time one of the most important tasks in preventive medicine.*

<sup>10</sup> Compare "Stillbirth Statistics by Period of Gestation, United States and Each State, 1944" Vital Statistics—Special Reports, Vol. 25, No. 17, February 12, 1947, National Office of Vital Statistics.

## Causes of infant deaths

The leading causes of infant deaths are shown in table 17, together with some other causes that have special medical interest, such as acute infectious diseases, syphilis, dysentery, and tuberculosis. The table gives for each cause the number of deaths and the death rates under 1 year and under 1 month for all infants and for white and nonwhite infants, with the racial differential (ratio of rates, nonwhite to white).

The five leading causes of infant deaths in 1946 were, in order, premature birth, 39,824; congenital malformations, 14,912; pneumonia and influenza, 12,657; injury at birth, 11,738; diarrhea and enteritis, 5,498. Together these caused 84,629 deaths, or more than three-fourths (76.2 percent) of the 111,063 deaths under 1 year. The order of the five leading causes of death in the neonatal period is somewhat different, with premature birth and injury at birth carrying still greater weight. Of the 79,079 deaths under 1 month in 1946, 38,939 were due to premature birth, 11,508 to injury at birth, 9,994 to congenital malformations, 2,887 to pneumonia and influenza, and 1,356 to diarrhea and enteritis—together, 64,684 deaths, or more than four-fifths (81.8 percent) of the neonatal deaths. Premature birth alone was responsible for 36 percent of all deaths under 1 year and for close to 50 percent of all deaths under 1 month.

It will be seen from table 17 that in the order of frequency of deaths from these causes there are marked differences between the white and the nonwhite infants. Of particular note is the fact, observed also in previous years, that deaths from congenital malformations occur more frequently among white infants, for whom this cause ranked second in 1946, with 13,874 deaths. For the nonwhite infants congenital malformations

Table 17.—Infant and neonatal deaths and death rates for selected causes, by race: United States, 1946

(Exclusive of stillbirths)

Cause of death in rank order of total deaths, 1946	Deaths under 1 year			Deaths under 1 month		
	Total	White	Nonwhite	Total	White	Nonwhite
All causes-----	111, 063	92, 510	18, 553	79, 079	67, 247	11, 832
Premature birth-----	39, 824	34, 057	5, 767	38, 939	33, 399	5, 540
Congenital malformations-----	14, 912	13, 874	1, 038	9, 994	9, 346	648
Pneumonia and influenza-----	12, 657	9, 497	3, 160	2, 887	2, 204	683
Injury at birth-----	11, 738	10, 493	1, 245	11, 508	10, 283	1, 225
Diarrhea, enteritis, etc-----	5, 498	4, 473	1, 025	1, 356	1, 089	267
Accidents-----	2, 915	2, 334	581	580	451	129
Congenital debility-----	1, 797	1, 301	496	1, 053	758	295
Acute infectious diseases <sup>1</sup> -----	1, 526	1, 203	323	97	73	24
Syphilis-----	538	193	345	315	101	214
Dysentery-----	480	392	88	62	46	16
Tuberculosis (all forms)-----	406	271	135	10	7	3
Ill-defined and unknown causes-----	4, 129	2, 025	2, 104	2, 462	1, 118	1, 344

Cause of death in rank order of total deaths, 1946	Rate per 1,000 live births						Ratio of rates, non-white to white
	Deaths under 1 year			Deaths under 1 month			
	Total	White	Nonwhite	Total	White	Nonwhite	Under 1 year
All causes-----	33. 8	31. 8	49. 5	24. 0	23. 1	31. 5	1. 6
Premature birth-----	12. 1	11. 7	15. 4	11. 8	11. 5	14. 8	1. 3
Congenital malformations-----	4. 5	4. 8	2. 8	3. 0	3. 2	1. 7	0. 6
Pneumonia and influenza-----	3. 8	3. 3	8. 4	0. 9	0. 8	1. 8	2. 5
Injury at birth-----	3. 6	3. 6	3. 3	3. 5	3. 5	3. 3	0. 9
Diarrhea, enteritis, etc-----	1. 7	1. 5	2. 7	0. 4	0. 4	0. 7	1. 8
Accidents-----	0. 9	0. 8	1. 5	0. 2	0. 2	0. 3	1. 9
Congenital debility-----	0. 5	0. 4	1. 3	0. 3	0. 3	0. 8	3. 3
Acute infectious diseases <sup>1</sup> -----	0. 5	0. 4	0. 9	0. 0	0. 0	0. 1	2. 3
Syphilis-----	0. 2	0. 1	0. 9	0. 1	0. 0	0. 6	9. 0
Dysentery-----	0. 1	0. 1	0. 2	0. 0	0. 0	0. 0	2. 0
Tuberculosis (all forms)-----	0. 1	0. 1	0. 4	0. 0	0. 0	0. 0	4. 0
Ill-defined and unknown causes-----	1. 3	0. 7	5. 6	0. 7	0. 4	3. 6	8. 0

<sup>1</sup> Deaths from acute infectious diseases: Measles, 297; scarlet fever, 6; whooping cough, 869; diphtheria, 84; meningococcus meningitis, 270.

held fourth place with only 1,038 deaths, being surpassed by pneumonia and influenza with 3,160 deaths and injury at birth with 1,245 deaths.

The relative importance of the different causes is seen more clearly when the deaths are related to the live births in the two racial classifications. For congenital malformations the nonwhite group shows a distinctly lower rate than the white, 2.8 against 4.8 per 1,000 live births, the ratio of non-white to white being 0.6. The nonwhite infants also show a somewhat lower rate for injury at birth, the ratio being 0.9.

Special attention should be called to the collective group, "ill-defined and unknown causes," for which the death rate of the nonwhite infants was eight times that of the white infants. The high rate for these causes among nonwhite infants probably reflects less diagnostic service and medical supervision for the nonwhite infants. In comparing rates for white and for nonwhite infants with respect to specific causes such as congenital malformations, birth injury, and others, it needs to be borne in mind that the rates among nonwhite infants for specific causes are more

uncertain than the rates among white infants because of the larger proportion of deaths assigned to ill-defined and unknown causes.

For all other causes the nonwhite infants had higher death rates than the white in 1946. High ratios of nonwhite rates to white are shown in table 17 for pneumonia and influenza 2.5, accidents 1.9, congenital debility 3.3, acute infectious diseases 2.3, tuberculosis 4.0, and syphilis 9.0. The racial differential for syphilis is the largest shown, and it is worth noting that though deaths from syphilis were relatively few, the 345 deaths in the nonwhite group far exceeded the 193 deaths in the much larger white group.

### Infant mortality in the geographic divisions and States

As we have seen, infant mortality in the United States as a whole decreased by as much as 42 percent from 1933 to 1946, from 58.1 to 33.8 deaths per 1,000 live births, and the percentage reduction in the death rate for nonwhite infants was somewhat larger than that for white infants. However, in 1946 there remained wide disparity in infant-mortality experience among the different States and geographic divisions, and in all States where the number of nonwhite births was large enough for comparison with white births the infant

death rates for the nonwhite groups were higher than those for the white.

Data on infant mortality in the different States and geographic regions are shown for 1946 in table 18 and for 1945 in table 19. The tables give the number of deaths and the death rates for all infants and for white and nonwhite infants, except that the rates for the nonwhite infants are shown only when they are based on a population at risk of at least 1,000 live births. (See the footnotes to the tables.) The ratio of the nonwhite rate to the white rate is shown for each State for which the group of nonwhite infants was considered large enough for computing rates without relatively large chance fluctuations.

Among geographic divisions infant death rates in 1946 were lowest in the Middle Atlantic States with a rate of 30.4, followed by the West North Central States with 30.8, the Pacific States with 30.9, the East North Central States with 31.2, and the New England States with 31.7. The rates were highest in the Mountain States with 42.3, followed by the East South Central States with 38.5, the South Atlantic States with 38.0, and the West South Central States with 37.7.

The lowest infant death rates among the States in 1946 were in Oregon and Connecticut, with 27.7

**Table 18.—Infant mortality by race: United States, each division and State, 1946**

(Exclusive of stillbirths. By place of residence)

Area	Number of deaths under 1 year			Rate per 1,000 live births			Ratio of rates, nonwhite to white
	Total	White	Nonwhite	Total	White	Nonwhite	
United States.....	111, 063	92, 510	18, 553	33. 8	31. 8	49. 5	1. 6
Geographic Divisions:							
New England.....	6, 097	5, 962	135	31. 7	31. 5	44. 7	1. 4
Middle Atlantic.....	18, 256	16, 432	1, 824	30. 4	29. 2	49. 6	1. 7
East North Central.....	20, 123	18, 541	1, 582	31. 2	30. 4	45. 5	1. 5
West North Central.....	9, 285	8, 695	590	30. 8	29. 8	57. 3	1. 9
South Atlantic.....	18, 775	12, 111	6, 664	38. 0	33. 4	50. 5	1. 5
East South Central.....	11, 210	7, 672	3, 538	38. 5	35. 4	47. 3	1. 3
West South Central.....	13, 039	10, 016	3, 023	37. 7	35. 3	48. 4	1. 4
Mountain.....	5, 006	4, 468	538	42. 3	39. 6	97. 4	2. 5
Pacific.....	9, 272	8, 613	659	30. 9	30. 2	43. 0	1. 4
New England:							
Maine.....	833	829	4	41. 0	40. 9	( <sup>1</sup> )	-----
New Hampshire.....	348	346	2	31. 4	31. 2	( <sup>1</sup> )	-----
Vermont.....	284	284	—	34. 0	34. 0	( <sup>1</sup> )	-----
Massachusetts.....	2, 984	2, 914	70	31. 6	31. 4	46. 6	1. 5
Rhode Island.....	494	476	18	29. 5	29. 0	( <sup>1</sup> )	-----
Connecticut.....	1, 154	1, 113	41	27. 8	27. 6	36. 5	1. 3

See footnote at end of table.

Area	Number of deaths under 1 year			Rate per 1,000 live births			Ratio of rates, nonwhite to white
	Total	White	Nonwhite	Total	White	Nonwhite	
Middle Atlantic:							
New York.....	8,345	7,506	839	29.1	27.9	48.6	1.7
New Jersey.....	2,715	2,398	317	28.5	27.1	48.0	1.8
Pennsylvania.....	7,196	6,528	668	33.0	31.8	51.7	1.6
East North Central:							
Ohio.....	5,312	4,893	419	31.3	30.6	42.3	1.4
Indiana.....	2,697	2,512	185	31.5	30.5	57.2	1.9
Illinois.....	5,316	4,742	574	30.4	29.2	45.9	1.6
Michigan.....	4,552	4,189	363	32.7	32.0	43.6	1.4
Wisconsin.....	2,246	2,205	41	30.0	29.8	(1)	-----
West North Central:							
Minnesota.....	1,925	1,869	56	28.6	28.1	(1)	-----
Iowa.....	1,681	1,658	23	29.9	29.7	(1)	-----
Missouri.....	2,665	2,332	333	33.0	31.2	55.1	1.8
North Dakota.....	519	495	24	34.0	33.2	(1)	-----
South Dakota.....	432	362	70	29.6	26.0	(1)	-----
Nebraska.....	846	814	32	30.2	29.6	(1)	-----
Kansas.....	1,217	1,165	52	30.6	30.4	35.0	1.2
South Atlantic:							
Delaware.....	202	149	53	29.7	25.6	(1)	-----
Maryland.....	1,713	1,207	506	34.0	29.4	54.6	1.9
District of Columbia.....	767	440	327	41.2	35.8	51.7	1.4
Virginia.....	2,935	1,976	959	38.7	33.9	54.8	1.6
West Virginia.....	1,990	1,868	122	40.9	40.4	49.9	1.2
North Carolina.....	3,742	2,324	1,418	37.2	32.7	47.9	1.5
South Carolina.....	2,235	1,053	1,182	41.4	34.0	51.5	1.5
Georgia.....	3,075	1,707	1,368	35.9	30.3	46.7	1.5
Florida.....	2,116	1,387	729	39.4	34.6	53.7	1.6
East South Central:							
Kentucky.....	2,900	2,644	256	40.0	38.2	75.3	2.0
Tennessee.....	2,974	2,329	645	38.5	35.6	54.5	1.5
Alabama.....	3,025	1,663	1,362	37.9	32.0	48.8	1.5
Mississippi.....	2,311	1,036	1,275	37.5	34.6	40.2	1.2
West South Central:							
Arkansas.....	1,283	971	312	28.3	27.6	30.8	1.1
Louisiana.....	2,553	1,272	1,281	37.2	29.4	50.4	1.7
Oklahoma.....	1,639	1,386	253	32.5	30.9	45.4	1.5
Texas.....	7,564	6,387	1,177	41.7	39.9	55.2	1.4
Mountain:							
Montana.....	448	383	65	34.8	31.3	(1)	-----
Idaho.....	453	446	7	32.9	32.9	(1)	-----
Wyoming.....	205	192	13	33.1	31.8	(1)	-----
Colorado.....	1,180	1,150	30	40.0	39.8	(1)	-----
New Mexico.....	1,415	1,201	214	78.2	72.0	151.5	2.1
Arizona.....	679	492	187	41.5	34.2	95.1	2.8
Utah.....	496	488	8	27.2	27.2	(1)	-----
Nevada.....	130	116	14	39.6	38.2	(1)	-----
Pacific:							
Washington.....	1,734	1,634	100	33.4	32.3	69.4	2.1
Oregon.....	833	802	31	27.7	27.2	(1)	-----
California.....	6,705	6,177	528	30.7	30.1	39.6	1.3

<sup>1</sup> Not shown because the number of nonwhite births was less than 1,000 and the rates are subject to large chance errors. Number of nonwhite births in these States: 638 in Colorado, 991 in Delaware, 216 in Idaho, 412 in Iowa, 36 in Maine, 755 in Minnesota, 629 in Montana, 575 in Nebraska, 246 in Nevada, 18 in New Hampshire, 371 in North Dakota, 572 in Oregon, 336 in Rhode Island, 648 in South Dakota, 271 in Utah, 4 in Vermont, 821 in Wisconsin, 144 in Wyoming. Together in these 18 States there occurred 7,683 nonwhite births with 491 deaths under 1 year to residents of the States, which gives an infant death rate of 63.9 per 1,000 live births.

and 27.8 deaths per 1,000 live births. From these lows the rates for the different States ranged to 40.0 in Colorado and Kentucky, 40.9 in West Virginia, 41.0, 41.2, and 41.4, respectively, in Maine, the District of Columbia, and South Carolina, and to the highest rate of all, 78.2 in New Mexico.

The racial differentials between mortality of the nonwhite infants and of the white infants in the geographic divisions and individual States indicate inequalities at which continuing efforts for further control of infant mortality should be directed. In the Mountain division the ratio of the nonwhite rates to the white in 1946 was 2.5; in the other geographic divisions it was below 2. The lowest ratio was in the East South Central division (Kentucky, Tennessee, Alabama, Mississippi) with 1.3; this ratio was the same as in the previous year, and resulted from a relatively high mortality of the white infants (above United States average for white infants) and a relatively low mortality of the nonwhite infants (below United States average for nonwhite infants). A similar feature, worthy of note, is seen in the West South Central division. In the New England, East North Central, and Pacific divisions, both the white and the nonwhite infants show mortality rates lower than the United States averages. The racial differ-

entials for individual States may be seen from the tables; they vary for 1946 between 1.1 (Arkansas) and 2.8 (Arizona).

In every State where the group of nonwhite infants was considered large enough to justify comparison with the white infants, the death rate for the nonwhite group exceeded the rate for the white group in 1946. It reached at least double the rate for white infants in Kentucky, Washington, New Mexico, and Arizona. Of the individual States for which death rates for the nonwhite infants are shown, Arkansas, Kansas, Mississippi, and West Virginia had the smallest relative differences between the nonwhite and white rates, not over 20 percent.

The differences in mortality experience among the different States and different groups of the population are indications that loss of infant life in the United States is still unnecessarily high. More than 20,000 infants who died in 1946 would have lived had the relatively low infant mortality that prevailed among white infants in New Jersey, Utah, and Oregon, for example, characterized all other States as well. Such conservation of our vital resources is possible in coming years, as needed health and medical services are made available to all mothers and infants.

**Table 19.—Infant mortality by race: United States, each division and State, 1945**

(Exclusive of stillbirths. By place of residence)

Area	Number of deaths under 1 year			Rate per 1,000 live births			Ratio of rates, nonwhite to white
	Total	White	Nonwhite	Total	White	Nonwhite	
United States.....	104, 684	85, 295	19, 389	38. 3	35. 6	57. 0	1. 6
Geographic divisions:							
New England.....	5, 145	5, 015	130	32. 9	32. 6	50. 1	1. 5
Middle Atlantic.....	16, 527	14, 787	1, 740	34. 0	32. 5	56. 9	1. 8
East North Central.....	17, 617	16, 059	1, 558	34. 3	33. 1	54. 9	1. 7
West North Central.....	8, 094	7, 497	597	32. 6	31. 3	65. 9	2. 1
South Atlantic.....	19, 353	11, 964	7, 389	45. 0	39. 0	59. 7	1. 5
East South Central.....	11, 299	7, 652	3, 647	45. 1	42. 5	51. 8	1. 2
West South Central.....	13, 174	10, 060	3, 114	44. 1	41. 7	54. 5	1. 3
Mountain.....	5, 253	4, 634	619	53. 4	49. 8	117. 3	2. 4
Pacific.....	8, 222	7, 627	595	32. 5	31. 7	47. 0	1. 5
New England:							
Maine.....	773	767	6	46. 3	46. 1	(1)	-----
New Hampshire.....	303	302	1	36. 3	36. 3	(1)	-----
Vermont.....	238	238	—	34. 6	34. 7	(1)	-----
Massachusetts.....	2, 436	2, 371	65	31. 6	31. 3	51. 6	1. 6
Rhode Island.....	384	363	21	28. 2	27. 3	(1)	-----
Connecticut.....	1, 011	974	37	29. 9	29. 7	(1)	-----

See footnote at end of table.

Area	Number of deaths under 1 year			Rate per 1,000 live births			Ratio of rates, nonwhite to white
	Total	White	Nonwhite	Total	White	Nonwhite	
Middle Atlantic:							
New York.....	7,461	6,748	713	31.8	30.5	53.1	1.7
New Jersey.....	2,476	2,159	317	32.0	30.1	57.3	1.9
Pennsylvania.....	6,590	5,880	710	37.9	36.3	61.1	1.7
East North Central:							
Ohio.....	4,830	4,400	430	36.5	35.3	54.6	1.5
Indiana.....	2,462	2,260	202	36.0	34.4	71.6	2.1
Illinois.....	4,377	3,848	529	31.6	29.9	52.2	1.7
Michigan.....	4,035	3,690	345	35.8	34.9	50.6	1.4
Wisconsin.....	1,913	1,861	52	31.1	30.7	( <sup>1</sup> )	-----
West North Central:							
Minnesota.....	1,698	1,649	49	31.1	30.6	( <sup>1</sup> )	-----
Iowa.....	1,363	1,341	22	30.3	30.1	( <sup>1</sup> )	-----
Missouri.....	2,464	2,131	333	37.5	35.2	64.2	1.8
North Dakota.....	385	370	15	29.3	28.9	( <sup>1</sup> )	-----
South Dakota.....	388	329	59	31.1	27.9	( <sup>1</sup> )	-----
Nebraska.....	687	642	45	28.5	27.2	( <sup>1</sup> )	-----
Kansas.....	1,109	1,035	74	33.0	32.0	59.6	1.9
South Atlantic:							
Delaware.....	233	168	65	38.9	33.2	( <sup>1</sup> )	-----
Maryland.....	1,626	1,110	516	38.0	32.0	63.4	2.0
District of Columbia.....	780	402	378	48.3	37.0	71.6	1.9
Virginia.....	3,178	2,025	1,153	47.4	40.3	68.5	1.7
West Virginia.....	2,030	1,903	127	52.0	51.6	59.4	1.2
North Carolina.....	3,782	2,234	1,548	43.3	37.5	55.5	1.5
South Carolina.....	2,469	1,083	1,386	49.9	40.5	61.1	1.5
Georgia.....	3,162	1,721	1,441	42.2	36.2	52.7	1.5
Florida.....	2,093	1,318	775	43.8	37.4	61.6	1.6
East South Central:							
Kentucky.....	2,858	2,630	228	46.9	45.6	70.4	1.5
Tennessee.....	3,096	2,448	648	47.7	45.2	60.3	1.3
Alabama.....	3,141	1,709	1,432	44.7	38.8	54.6	1.4
Mississippi.....	2,204	865	1,339	40.6	35.9	44.4	1.2
West South Central:							
Arkansas.....	1,256	926	330	31.7	31.4	32.6	1.0
Louisiana.....	2,488	1,170	1,318	43.0	33.2	58.3	1.8
Oklahoma.....	1,727	1,431	296	40.0	37.3	61.7	1.7
Texas.....	7,703	6,533	1,170	48.8	47.2	59.6	1.3
Mountain:							
Montana.....	363	314	49	34.2	31.5	( <sup>1</sup> )	-----
Idaho.....	403	385	18	35.0	34.1	( <sup>1</sup> )	-----
Wyoming.....	219	206	13	40.0	39.3	( <sup>1</sup> )	-----
Colorado.....	1,188	1,161	27	50.5	50.8	( <sup>1</sup> )	-----
New Mexico.....	1,543	1,316	227	100.8	93.7	179.4	1.9
Arizona.....	917	666	251	68.7	57.7	139.5	2.4
Utah.....	488	472	16	31.1	30.6	( <sup>1</sup> )	-----
Nevada.....	132	114	18	46.3	43.2	( <sup>1</sup> )	-----
Pacific:							
Washington.....	1,539	1,448	91	34.5	33.5	65.8	2.0
Oregon.....	692	657	35	28.7	27.9	( <sup>1</sup> )	-----
California.....	5,991	5,522	469	32.5	31.8	43.9	1.4

<sup>1</sup> Not shown because the number of nonwhite births was less than 1,000 and the rates are subject to large chance errors. Number of nonwhite births in these States: 647 in Colorado, 933 in Connecticut, 917 in Delaware, 213 in Idaho, 350 in Iowa, 49 in Maine, 735 in Minnesota, 627 in Montana, 543 in Nebraska, 211 in Nevada, 14 in New Hampshire, 328 in North Dakota, 577 in Oregon, 333 in Rhode Island, 674 in South Dakota, 274 in Utah, 5 in Vermont, 733 in Wisconsin, 242 in Wyoming. Together in these 19 States there occurred 8,405 nonwhite births with 548 deaths under 1 year to residents of the States, which gives an infant death rate of 65.2 per 1,000 live births.

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**CHILDREN'S BUREAU**

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**MORTALITY FROM  
PREMATURE BIRTH  
AND ASSOCIATED  
CAUSES OF DEATH,**

**1948**

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MORTALITY FROM PREMATURE BIRTH AND ASSOCIATED CAUSES OF DEATH  
1948

Summary

Dr. Dunham's earlier report in this series <sup>1/</sup> presented trend data on infant deaths attributed to premature birth in the United States during the period 1935-44, together with a detailed analysis of the data for the year 1944.

This report extends the trend data through 1948, gives a detailed picture for that year, and discusses the procedure used in coding a certificate of infant death when the physician has certified both premature birth and some further cause as reasons for the infant's death. All data are those published regularly or furnished through special tabulations by the National Office of Vital Statistics.

In brief, from 1935 to 1948 neonatal mortality (deaths under 1 month per 1,000 live births) from premature birth declined 28 percent.

Over the same period the decline for neonatal mortality from all causes except premature birth amounted to 35 percent.

During the year 1948, of all deaths under 1 year of age due to premature birth, 57 percent occurred in the first day following delivery. Another 33 percent occurred during the rest of the first week of life, while 8 percent occurred during the remainder of the first month. Only 2 percent of all infant deaths attributed to premature birth occurred between the ages of 1 month and 1 year.

Of all infants dying under 1 month of age from any cause, premature birth accounted for nearly half, or 49 percent, of the cases. Other causes of prenatal or natal origin accounted for an additional 40 percent. All further causes accounted for only 11 percent of the neonatal deaths in 1948.

These data concern infant deaths as assigned in each case to the primary cause of death, according to the coding rules used in connection with the Fifth International List of Causes of Death. As is well known, however, physicians often give more than one cause on a death certificate.

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<sup>1/</sup> Ethel C. Dunham, Deaths of premature infants in the United States. Children's Bureau Statistical Series, No. 2, Federal Security Agency, 1947.

From a study of the combinations of causes which the physicians state on the certificates of infant death, it is found that the main causes associated with premature birth are (1) congenital debility, (2) "other diseases peculiar to the first year," and (3) injury at birth.

When the physician has stated both congenital debility and premature birth on a certificate, the rules require assignment to premature birth as the primary cause.

The rules likewise require assignment to premature birth when the physician has stated both that cause and one of the "other diseases peculiar to the first year"; the latter category comprises several causes, among which the largest single one is asphyxia and atelectasis.

When, however, both premature birth and injury at birth are stated by the physician, the assignment is always made to injury at birth as the primary cause of death.

Causes stated in combination with premature birth less often than those three main causes include congenital malformations, diseases of the respiratory system, and diseases of the digestive system. For these and numerous other causes, none of which occur very frequently in combination with premature birth, the rules for selecting the primary cause are complex. The net result is that assignments to premature birth or to the other stated cause are roughly proportional to the original frequencies of certificates on which premature birth was or was not stated as one of the causes of death.

On the whole, the significance of the various rules for allocating causes of infant death is that physicians give premature birth as at least one cause approximately 17 percent more often than would appear from the data on primary causes coded in accordance with the Fifth International List.

#### Criteria of Premature Birth

As is to be expected for a phenomenon as complex as premature birth, its definitions have varied not only with the criteria believed to be of most importance, but also with the circumstances in which the definitions are used.

To avoid confusion it is worth while to note briefly the differences between the two definitions used most frequently in connection with statistical data. They differ both in respect to the objectivity with which they can be applied and in respect to the time when they are used.

In connection with programs of care for prematurely born infants, and especially in statistical studies of the results of care, it is generally agreed that a prematurely born infant should be defined as one whose birth weight is 2,500 grams (5 lb. 8 oz.) or less. In this definition the criterion is objective. Moreover, the question as to whether or not a given infant is considered premature is determined as of the time of birth.

The other definition concerns data on causes of infant mortality derived from physicians' statements on death certificates. This is the only definition considered in the present report. Here "premature birth" refers to deceased infants only, and in each case the term means simply a judgment reached after the infant's death has occurred. This judgment is a clinical diagnosis, as made by the physician certifying the cause(s) of death, and as he then records his diagnosis on the death certificate. When making the diagnosis the physician usually considers the infant's birth weight and gestation period so far as that information is available to him, but it is known that in many cases the physician also gives consideration to the infant's general developmental status as judged from its morphologic features.

Extensive data will probably be available in the near future on the degree to which these "after-death" diagnoses of premature birth correspond with the actual birth weights of the deceased infants. For, since 1949, the reporting of birth weight has been required on the birth certificates of almost all the States. Consequently State offices of vital statistics may now study the relationship between the two definitions of premature birth by matching death certificates stating "premature birth" as a cause of death with the birth certificates of the same infants. States will also be able to relate the deaths of infants in each birth weight group to total births in that group, and thus to compute mortality rates of prematurely born infants according to the objective criterion of birth weight.

No national estimates of mortality rates on the latter basis are available as yet, and neither is information as to the statistical relationship between birth weight and the diagnoses of premature birth made following death. Whatever the latter relationship turns out to be, however, it is likely that the diagnoses made after death will continue to be of interest and value for a considerable time to come, if only because, despite the advantages of the birth weight criterion for statistical purposes, it can hardly be regarded as the sole or ideal criterion of premature birth for all purposes.

While recognizing the value of data derived from the clinical diagnoses of premature birth recorded on death certificates, it should be noted that certain factors may have impaired the comparability of such data as between one time period and another and as among different

groups of physicians. Though no specific data on the problem are available, possible effects of these factors should be kept in mind in interpreting the mortality rates discussed in this report.

Those physicians who have specialized in the problems of infancy have long recognized that certification of premature birth as a cause of death is not a very satisfactory procedure, even though it is admitted that in many cases no other cause of death can be established. In any event, from a diagnostic viewpoint the line between premature and full term cases is not easy to draw, and marginal cases are frequent. Under these circumstances it is likely that physicians with specialized training certify premature birth as a cause of death somewhat less frequently than those physicians who have not specialized in the problems of infancy. If, for example, physicians certifying deaths of nonwhite infants have less specialized training than those certifying deaths of white infants, this might account in some part for the relatively high mortality rate attributed to premature birth in nonwhite infants.

Also, in line with the general improvement that has been occurring over the past few decades with respect to differential diagnosis of diseases and causes of death in infancy, it is probable that most groups of physicians now report additional causes of the deaths of prematurely born infants somewhat more often than was true a decade or more ago. Since some of these cases are assigned to causes of death other than premature birth, the effect over a period of time would be a certain lowering of officially reported mortality rates from premature birth, even if there were no change in basic conditions affecting the survival of prematurely born infants. By itself, this effect would be small, as may be inferred from the data in the final section of this report.

Finally, it is well to note that although the Sixth Revision of the International List of Diseases and Causes of Death is now published 2/ and in use, the data of this report do not concern that Revision. It is being applied only to national data for 1949 and later years.

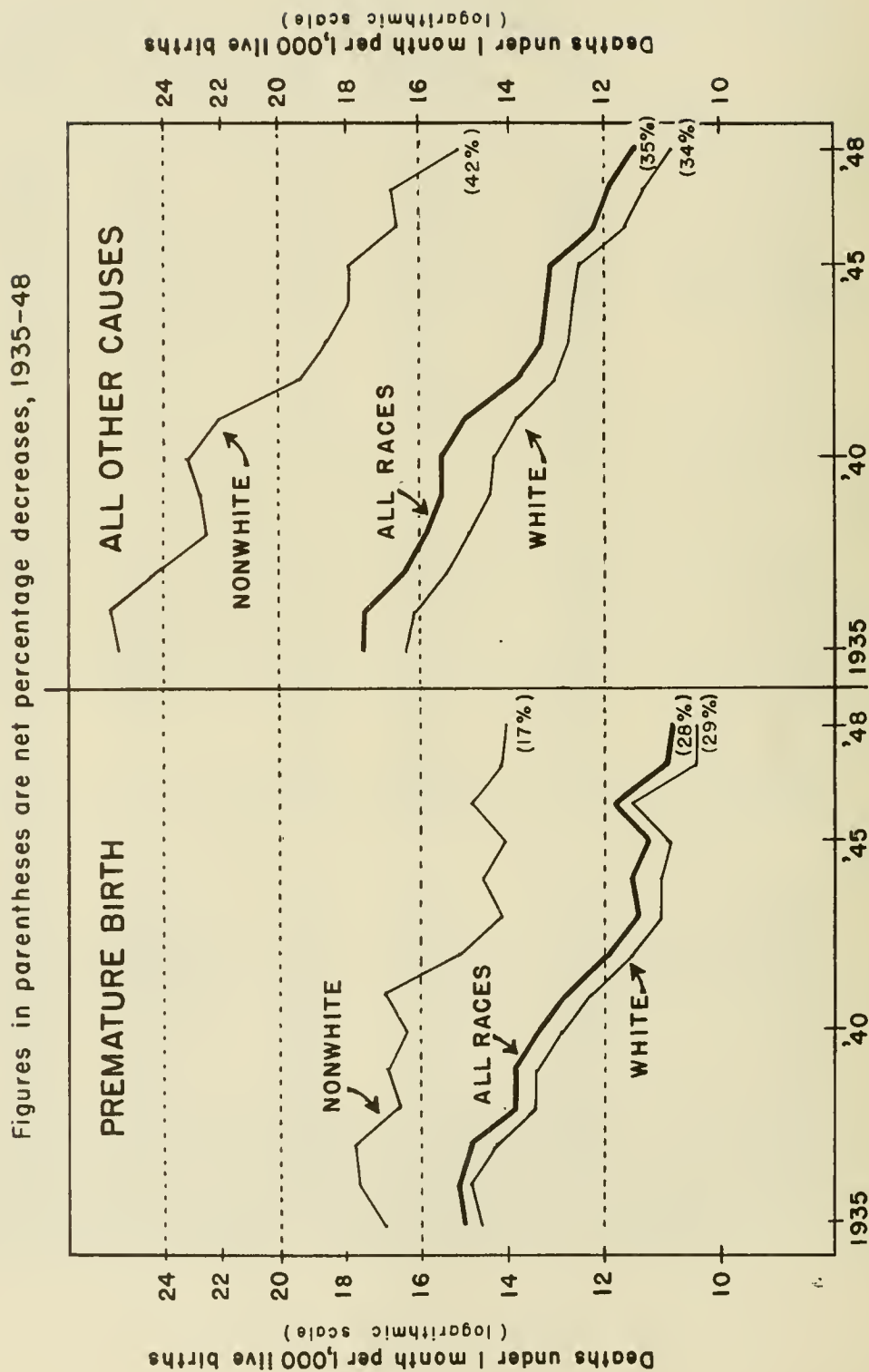
The data in this report for the years 1935-38 derive from the Fourth Revision, and the data for the years 1939-48 from the Fifth Revision, of the International List. The Fourth and Fifth Revisions did not differ significantly in respect to the coding of deaths from premature birth.

2/ Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death: Sixth Revision of the International Lists of Diseases and Causes of Death. World Health Organization, Geneva, Switzerland: 1948 (Volume 1), and 1949 (Volume 2, Alphabetical Index). Reference to the Fifth Revision is given in the last section of this report.

Table 1. -- NEONATAL AND INFANT MORTALITY RATES, FROM PREMATURE BIRTH AND ALL OTHER CAUSES, BY RACE: UNITED STATES, 1935-48.

Race and year	NEONATAL MORTALITY RATES (Deaths under 1 month per 1,000 live births)			INFANT MORTALITY RATES (Deaths under 1 year per 1,000 live births)		
	All causes	Premature birth	Other causes	All causes	Premature birth	Other causes
<b>ALL RACES</b>						
1948	22.2	10.8	11.4	32.0	11.1	20.9
1947	22.8	10.9	11.9	32.2	11.1	21.1
1946	24.0	11.8	12.2	33.8	12.1	21.7
1945	24.3	11.2	13.1	38.3	11.6	26.7
1944	24.7	11.5	13.2	39.8	11.9	27.9
1943	24.7	11.4	13.3	40.4	11.8	28.6
1942	25.7	11.9	13.8	40.4	12.3	28.1
1941	27.7	12.8	14.9	45.3	13.3	32.0
1940	28.8	13.3	15.5	47.0	13.7	33.3
1939	29.3	13.8	15.5	48.0	14.2	33.8
1938	29.6	13.8	15.8	51.0	14.3	36.7
1937	31.3	14.8	16.5	54.4	15.3	39.1
1936	32.6	15.1	17.5	57.1	15.7	41.4
1935	32.4	14.9	17.5	55.7	15.4	40.3
<b>WHITE</b>						
1948	21.2	10.4	10.8	29.9	10.5	19.4
1947	21.7	10.4	11.3	30.1	10.6	19.5
1946	23.1	11.5	11.6	31.8	11.7	20.1
1945	23.3	10.8	12.5	35.6	11.1	24.5
1944	23.6	11.0	12.6	36.9	11.4	25.5
1943	23.7	11.0	12.7	37.5	11.4	26.1
1942	24.5	11.5	13.0	37.3	11.8	25.5
1941	26.1	12.3	13.8	41.2	12.6	28.6
1940	27.2	12.9	14.3	43.2	13.2	30.0
1939	27.8	13.4	14.4	44.3	13.7	30.6
1938	28.3	13.4	14.9	47.1	13.8	33.3
1937	29.7	14.3	15.4	50.3	14.8	35.5
1936	31.0	14.8	16.2	52.9	15.3	37.6
1935	31.0	14.6	16.4	51.9	15.0	36.9
<b>NONWHITE</b>						
1948	29.1	14.0	15.1	46.5	14.6	31.9
1947	31.0	14.2	16.8	48.5	14.8	33.7
1946	31.5	14.8	16.7	49.5	15.4	34.1
1945	32.0	14.1	17.9	57.0	14.8	42.2
1944	32.5	14.6	17.9	60.3	15.3	45.0
1943	32.9	14.2	18.7	62.5	15.0	47.5
1942	34.6	15.2	19.4	64.6	16.0	48.6
1941	39.0	17.0	22.0	74.8	17.9	56.9
1940	39.7	16.5	23.2	73.8	17.3	56.5
1939	39.6	16.9	22.7	74.2	17.7	56.5
1938	39.1	16.6	22.5	79.1	17.6	61.5
1937	42.1	17.8	24.3	83.2	18.7	64.5
1936	43.9	17.7	26.2	87.6	18.7	68.9
1935	42.7	16.9	25.8	83.2	17.9	65.3

**FIG. 1- NEONATAL MORTALITY RATES FROM PREMATURE BIRTH  
AND ALL OTHER CAUSES, BY RACE: U.S. 1935-48**



Source: National Office of Vital Statistics

As between the Fifth and Sixth Revisions there are marked differences with respect to the coding of infant deaths. However, the differences will not occasion complete discontinuity in data concerning premature birth, inasmuch as "comparability ratios" will be available for statistical purposes. This problem is discussed further in the concluding section of this report.

### Trends Since 1935

Figure 1 shows the trends in neonatal mortality attributed to premature birth and to other causes, by race, from 1935 to 1948. For each rate in the left-hand panel, the number of deaths under 1 month assigned to premature birth in the given race group has been related to the number of live births occurring in that race group. The right-hand panel shows the analogous rates for all other causes of death taken together.

The vertical scale for both panels is logarithmic, and thus the slopes of the trend lines bring out the relative or percentage changes that have occurred in the rates. Since the slopes of the rates shown in the left-hand panel are not as steep as those in the right-hand panel, it is apparent that the decline in neonatal mortality from premature birth has been less than the decline for the other causes of death.

This is verified by the percentage decreases in the rates from 1935 to 1948, as computed from the data in table 1. The neonatal mortality rate for premature birth decreased 28 percent for all races (29 percent for white and 17 percent for nonwhite infants). However, the decrease in the neonatal rate for the other causes taken together was 35 percent for all races (34 percent for white and 42 percent for nonwhite infants).

From the discussion in the preceding section, it is evident that some part of the apparent decline in mortality from premature birth might be due to improved certification of the causes of infant death. It is also possible that certification by physicians reporting white cases has improved more rapidly than certification by physicians reporting nonwhite. However, the difference between the net declines for the two race groups (29 percent for white and 17 percent for nonwhite) seems too large to be accounted for on this basis alone. It thus appears that the success achieved in reducing deaths of prematurely born nonwhite infants has been relatively moderate, as compared with that achieved for prematurely born white infants, and especially as compared with the reduction in mortality of nonwhite infants from causes other than premature birth.

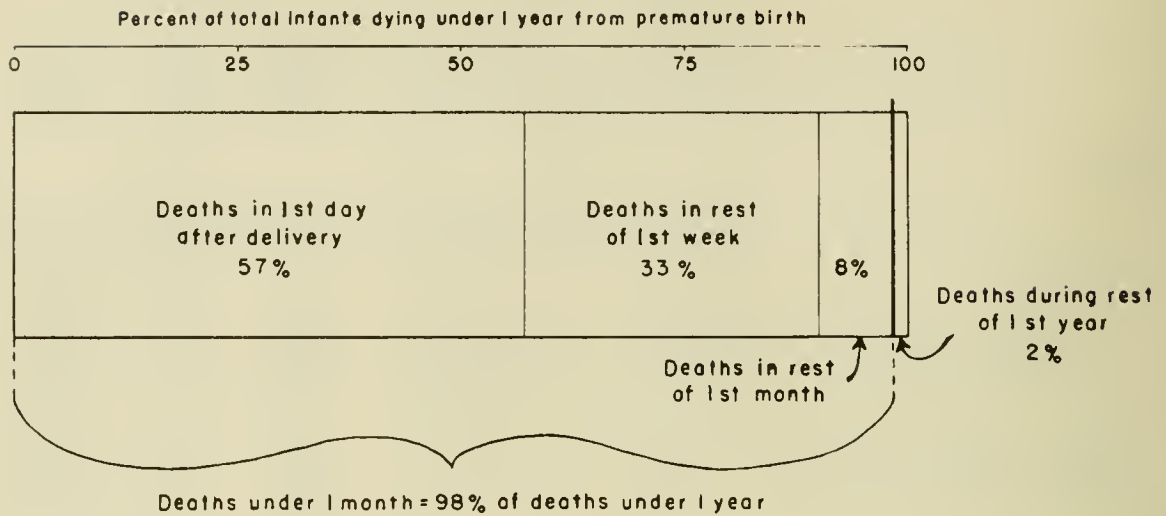
Table 2. -- NUMBER OF DEATHS, PERCENT OF DEATHS, AND MORTALITY RATES FROM PREMATURE BIRTH AND ALL CAUSES, BY AGE AND RACE: UNITED STATES, 1948.

Race and age at death	DEATHS FROM PREMATURE BIRTH			DEATHS FROM ALL CAUSES		
	Number of deaths	Percent distribution	Rate per 1,000 live births	Number of deaths	Percent distribution	Rate per 1,000 live births
<b>ALL RACES</b>						
Total under 1 year.....	39,085	100.0	11.1	113,169	100.0	32.0
Under 1 day.....	22,252	56.9	6.3	37,652	33.3	10.7
1 day to under 1 week.....	12,981	33.2	3.7	29,341	25.9	8.3
1 week to under 1 month.....	3,063	7.8	0.9	11,433	10.1	3.2
1 month to under 1 year.....	789	2.0	0.2	34,743	30.7	9.9
<b>WHITE</b>						
Total under 1 year.....	32,467	100.0	10.5	92,034	100.0	29.9
Under 1 day.....	18,729	57.7	6.1	31,768	34.5	10.3
1 day to under 1 week.....	10,900	33.6	3.5	24,389	26.5	7.9
1 week to under 1 month.....	2,291	7.1	0.7	9,025	9.8	2.9
1 month to under 1 year.....	547	1.7	0.2	26,852	29.2	8.8
<b>NONWHITE</b>						
Total under 1 year.....	6,618	100.0	14.6	21,135	100.0	46.5
Under 1 day.....	3,523	53.2	7.7	5,884	27.9	12.9
1 day to under 1 week.....	2,081	31.4	4.6	4,752	22.5	10.4
1 week to under 1 month.....	772	11.7	1.7	2,608	12.3	5.7
1 month to under 1 year.....	242	3.7	0.5	7,891	37.3	17.3

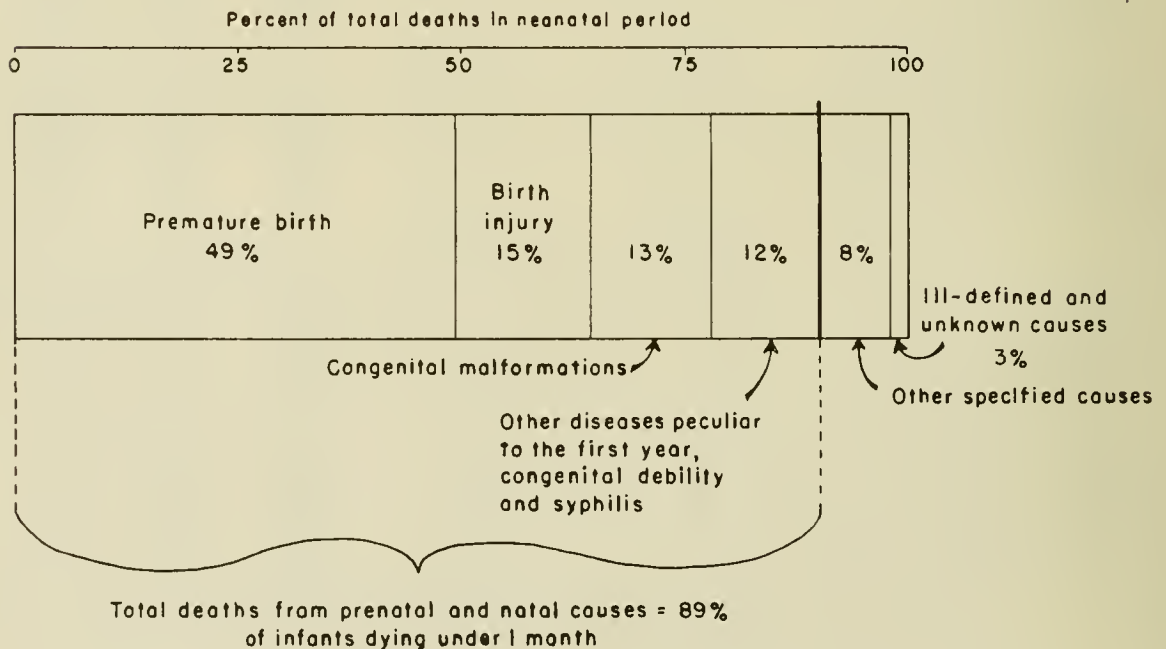
Table 3. -- NEONATAL AND INFANT MORTALITY, BY CAUSE AND RACE: UNITED STATES, 1948.

Race and cause of death	NEONATAL MORTALITY (Deaths under 1 month)			INFANT MORTALITY (Deaths under 1 year)		
	Number of deaths	Percent distri- bution	Rate per 1,000 live births	Number of deaths	Percent distri- bution	Rate per 1,000 live births
<b>ALL RACES</b>						
All causes.....	78,426	100.0	22.2	113,169	100.0	32.0
Prenatal and natal causes.....	69,815	89.0	19.7	77,759	68.7	22.0
Premature birth.....	38,296	48.8	10.8	39,085	34.5	11.1
Congenital malformations.....	10,256	13.1	2.9	15,778	14.0	4.5
Injury at birth.....	11,995	15.3	3.4	12,191	10.8	3.4
Congenital debility.....	884	1.1	0.3	1,613	1.4	0.5
Other diseases peculiar to the first year of life.....	8,125	10.4	2.3	8,654	7.6	2.4
Syphilis.....	259	0.3	0.1	438	0.4	0.1
Influenza and pneumonia.....	2,920	3.7	0.8	12,922	11.4	3.7
Dysentery, diarrhea and enteritis.	1,055	1.4	0.3	6,943	6.1	2.0
All other specified causes.....	2,437	3.1	0.7	11,694	10.3	3.3
Ill-defined and unknown causes....	2,199	2.8	0.6	3,851	3.4	1.1
<b>WHITE</b>						
All causes.....	65,182	100.0	21.2	92,034	100.0	29.9
Prenatal and natal causes.....	59,364	91.0	19.3	66,035	71.6	21.4
Premature birth.....	31,920	49.1	10.4	32,467	35.1	10.5
Congenital malformations.....	9,444	14.6	3.1	14,417	15.7	4.7
Injury at birth.....	10,414	16.0	3.4	10,589	11.4	3.4
Congenital debility.....	601	0.9	0.2	1,107	1.3	0.4
Other diseases peculiar to the first year of life.....	6,894	10.4	2.2	7,304	8.0	2.4
Syphilis.....	91	--	0.0	151	--	0.0
Influenza and pneumonia.....	2,182	3.3	0.7	9,455	10.4	3.1
Dysentery, diarrhea and enteritis.	853	1.4	0.3	5,665	6.4	1.9
All other specified causes.....	1,844	2.8	0.6	9,027	9.7	2.9
Ill-defined and unknown causes....	939	1.4	0.3	1,852	2.0	0.6
<b>NONWHITE</b>						
All causes.....	13,244	100.0	29.1	21,135	100.0	46.5
Prenatal and natal causes.....	10,451	79.0	23.0	11,724	55.5	25.8
Premature birth.....	6,376	48.1	14.0	6,618	31.4	14.6
Congenital malformations.....	812	6.2	1.8	1,361	6.5	3.0
Injury at birth.....	1,581	12.0	3.5	1,602	7.5	3.5
Congenital debility.....	283	2.1	0.6	506	2.4	1.1
Other diseases peculiar to the first year of life.....	1,231	9.3	2.7	1,350	6.5	3.0
Syphilis.....	168	1.4	0.4	287	1.3	0.6
Influenza and pneumonia.....	738	5.5	1.6	3,467	16.3	7.6
Dysentery, diarrhea and enteritis.	202	1.4	0.4	1,278	6.0	2.8
All other specified causes.....	593	4.5	1.3	2,667	12.7	5.9
Ill-defined and unknown causes....	1,260	9.6	2.8	1,999	9.5	4.4

**FIG. 2-AGE DISTRIBUTION OF DEATHS UNDER 1 YEAR  
FROM PREMATURE BIRTH: U. S., 1948**



**FIG. 3-DISTRIBUTION OF CAUSES OF DEATH UNDER 1 MONTH  
U. S., 1948**



Source: National Office of Vital Statistics

Figure 1 shows that mortality from premature birth showed a marked, though temporary, rise during the year 1946. The reasons for this rise are not yet clear. As is well known, following demobilization in 1945 the birth rate rose at an extraordinarily rapid rate during the year 1946. As a result some unusual combination of the factors of mother's age, parity, and possibly the interval between births may have increased the incidence of premature births during 1946. This seems more likely than the possibility that, during 1946, there was some marked worsening in medical or other conditions affecting the fate of prematurely born infants. In any event it is clear from the right-hand panel of figure 1 that conditions during 1946 were not such as to increase mortality from causes other than premature birth.

#### Age Distribution of Deaths From Premature Birth

Each year premature birth is stated as a cause of death on the certificates of a small number of infants who die after passing one year of age. Since the coding rules require that such cases be assigned either to ill-defined causes or to another cause stated on the certificates where any is given, these cases do not appear in the statistics as deaths involving premature birth. However, the justification of the coding rule is clear from figure 2. Well over half the cases of infants dying under one year and assigned to premature birth were deaths that occurred during the first day following delivery. Another third of the cases were deaths during the remainder of the first week of life. Only 8 percent occurred between the ages of one week and one month, and only 2 percent between the ages of one month and one year. Thus the neonatal mortality rate includes all except 2 percent of the deaths assigned to premature birth.

Table 2 shows that the age distributions of deaths from premature birth are of the same general form for white and nonwhite infants, except that the percentages and rates are disproportionately large for nonwhite infants in the older age groups. Nevertheless, for nonwhite as well as for white infants, over half the infant deaths under 1 year assigned to premature birth in 1948 were deaths in the first day of life.

#### Comparison With Other Causes of Neonatal Death

Figure 3 shows that those causes which may be considered prenatal or natal in origin accounted for 89 percent of the neonatal deaths in 1948. Premature birth, the largest single cause in this general group, accounted for 49 percent of the neonatal deaths. Birth injury and congenital malformations rank next in order, accounting, respectively, for 15 percent and 13 percent of the cases.

Table 4. -- NEONATAL MORTALITY RATE FROM PREMATURE BIRTH: UNITED STATES AND EACH STATE, 1935-48.

By place of residence. Rates are deaths under 1 month from premature birth per 1,000 live births.

State	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935
U. S.	10.8	10.9	11.8	11.2	11.5	11.4	11.9	12.8	13.3	13.8	13.8	14.8	15.1	14.9
Ala.	12.1	11.8	12.5	12.0	11.7	10.2	12.9	15.2	15.8	16.3	14.6	16.4	17.6	15.9
Aris.	12.0	11.0	9.5	13.6	12.7	13.1	15.2	14.8	14.5	17.0	15.6	17.5	17.9	16.5
Ark.	7.7	8.6	8.5	7.5	8.3	7.6	9.3	10.2	9.1	11.1	10.6	11.7	10.3	10.1
Calif.	10.2	10.1	11.1	10.7	11.6	10.9	11.0	12.8	12.6	13.4	13.2	15.3	15.1	14.8
Colo.	10.9	12.6	14.5	13.2	12.8	13.4	13.2	13.8	17.8	14.9	15.9	18.2	17.4	19.0
Conn.	8.9	9.3	10.9	10.0	9.6	8.7	9.4	9.3	11.2	12.0	11.8	14.2	13.0	12.7
Del.	11.4	12.6	10.3	10.7	13.8	14.1	12.9	11.9	14.1	10.7	13.1	17.2	14.3	13.4
D. C.	11.0	12.5	17.2	17.8	17.6	15.5	15.4	15.0	17.6	18.0	17.7	22.6	23.7	22.2
Fla.	13.0	14.1	14.6	13.8	14.4	13.9	13.8	15.4	15.7	16.1	18.0	17.8	17.0	16.8
Ge.	10.8	10.4	11.2	12.0	12.7	13.1	14.1	15.1	14.8	15.7	15.6	16.1	17.7	17.0
Idaho	10.5	11.3	13.2	11.9	10.6	10.7	11.2	11.4	13.1	14.2	13.3	12.9	14.5	14.5
Ill.	10.4	10.0	11.1	9.7	9.2	10.2	10.8	10.6	11.3	11.2	11.8	12.4	12.9	13.9
Ind.	10.5	10.9	11.8	10.7	9.8	10.2	10.9	10.8	11.9	11.6	12.6	14.4	14.9	14.3
Iowa	9.4	10.3	10.9	12.0	11.0	11.1	11.3	11.9	12.3	12.5	12.8	13.7	14.7	13.8
Kans.	9.0	9.2	11.1	9.0	9.3	9.5	11.3	11.8	11.5	13.3	13.6	13.7	14.7	13.2
Ky.	10.5	11.2	12.7	11.7	11.9	12.6	12.9	14.3	15.4	16.3	16.5	15.3	16.3	15.0
La.	12.5	11.8	13.6	13.0	14.0	12.5	12.8	17.0	16.8	15.9	18.2	16.9	17.6	16.9
Me.	8.3	10.2	12.7	12.2	11.8	11.6	11.3	13.1	16.7	18.1	17.5	20.3	19.6	18.4
Md.	10.0	10.2	12.2	10.8	12.7	11.8	12.6	15.2	14.8	13.9	15.4	17.1	15.2	16.6
Mass.	10.1	9.9	11.5	9.9	10.4	10.0	11.0	11.0	11.6	11.3	13.1	13.2	15.1	13.6
Mich.	11.7	12.0	12.2	11.8	12.2	11.7	12.2	12.2	12.4	13.8	14.4	14.5	14.8	15.1
Minn.	9.7	10.4	10.9	10.4	10.4	10.8	10.8	11.8	11.7	12.4	13.0	13.0	14.5	14.9
Miss.	10.5	9.4	9.8	8.8	8.9	10.0	10.3	12.2	11.1	10.5	11.1	11.7	10.4	9.9
Mo.	9.4	10.7	11.2	9.7	11.0	11.1	12.1	12.7	12.7	13.2	13.3	15.6	16.0	15.1
Mont.	10.6	11.3	11.4	11.1	10.0	11.9	10.6	10.8	15.8	15.0	13.3	13.7	14.6	16.2
Nebr.	11.0	10.2	13.0	9.9	10.8	12.3	10.7	12.2	12.1	11.8	11.8	13.2	12.9	13.0
Nev.	16.2	12.9	14.0	13.0	17.5	15.5	13.3	13.3	18.0	14.4	11.7	12.6	17.6	26.7
N. H.	11.2	10.6	9.1	10.9	11.0	13.2	11.6	11.4	10.7	14.5	15.6	14.7	14.2	18.4
N. J.	10.3	10.6	10.6	10.5	10.9	10.7	10.4	12.3	11.7	12.9	11.4	11.5	13.8	13.7
N. M.	15.1	15.7	13.7	16.2	15.5	15.4	15.4	14.0	14.7	16.0	13.0	15.5	14.2	13.5
N. Y.	10.7	10.3	11.1	10.9	10.4	10.7	10.6	10.7	11.6	12.0	12.5	13.1	13.4	13.6
N. C.	11.6	11.7	13.0	11.9	11.8	12.5	13.7	14.5	15.8	16.7	17.2	18.3	17.3	18.3
N. D.	10.8	10.7	11.4	8.9	11.7	12.1	12.9	11.4	15.0	14.2	16.3	14.6	12.9	14.4
Ohio	10.4	10.6	11.7	11.0	12.0	11.8	12.0	13.2	13.2	13.1	13.2	15.0	15.7	15.6
Okla.	12.1	11.2	11.6	12.1	12.9	13.5	12.0	15.3	15.4	15.0	13.5	15.2	14.9	13.7
Ore.	9.1	8.0	9.8	9.2	9.8	8.2	9.0	9.4	10.6	10.9	12.7	12.7	12.7	13.4
Pa.	10.3	10.9	12.3	11.5	11.8	11.4	12.1	12.6	13.7	14.2	13.4	14.9	15.3	14.4
R. I.	10.6	10.0	11.2	9.1	10.3	10.5	10.4	9.6	10.7	11.7	14.0	12.9	13.1	13.1
S. C.	11.6	11.4	13.3	12.9	14.0	13.4	14.4	14.9	14.2	15.8	15.1	15.1	15.6	13.6
S. D.	12.1	10.7	9.9	8.1	9.4	9.4	11.5	12.4	12.0	12.9	12.3	14.9	12.1	13.2
Tenn.	12.0	11.4	12.5	11.4	11.7	11.2	11.9	11.9	12.4	13.7	12.9	13.9	13.8	13.8
Texas	12.7	12.3	13.0	12.7	12.3	13.1	14.1	15.4	15.5	15.4	14.2	15.7	16.2	16.1
Utah	9.8	9.4	11.3	9.8	11.1	9.6	12.0	11.5	13.9	14.8	15.4	14.3	17.6	17.3
Vt.	9.5	10.2	13.0	9.7	12.6	9.4	13.2	14.6	15.8	13.5	14.6	16.4	18.3	17.1
Va.	13.4	12.6	13.3	12.4	13.7	13.6	14.5	16.7	17.0	18.0	17.5	18.7	19.6	18.5
Wash.	10.4	9.7	12.7	12.0	10.0	9.8	9.7	11.6	10.4	11.2	11.9	11.8	14.2	13.5
W. Va.	12.3	13.1	13.9	13.2	13.8	14.3	15.6	15.2	15.0	15.0	15.1	16.5	16.9	16.3
Wis.	9.5	11.0	10.5	10.2	10.0	10.8	10.0	10.6	11.8	14.1	12.8	13.7	13.7	14.4
Wyo.	13.3	10.7	11.3	10.9	10.8	11.3	17.1	13.5	13.5	17.2	16.6	15.0	17.5	16.7

More detailed data are given in table 3. In figure 3, for simplicity, the last group (12 percent) shown within the broad grouping for prenatal and natal causes includes not only the deaths from "other diseases peculiar to the first year" (No. 161 in the International List) but also the deaths from congenital debility and syphilis. As table 3 shows, the frequencies for congenital debility and syphilis are small compared to those for "other diseases peculiar to the first year." Within the latter group, by far the largest single cause is asphyxia and atelectasis (No. 161a). In 1948 this cause accounted for 6.7 percent of all neonatal deaths, or for well over half of the 12 percent shown in figure 3 as the last group of causes which are prenatal and natal in origin.

The relative importance of certain causes of neonatal death among white and nonwhite infants may be studied in table 3. The distributions tend to be similar in nature for the two race groups. Comparisons are best made in terms of the rates per 1,000 live births rather than in terms of the percentage distributions.

It is seen that only for premature birth, but also for most of the other causes, the rates are somewhat higher for nonwhite than white infants. This is particularly true for congenital debility, syphilis, and influenza and pneumonia.

For congenital malformations, however, it will be noted that the neonatal rate for white infants (3.1) differs from the rate for nonwhite infants (1.8) in the opposite direction. It is not known whether all of this difference may be due to less accurate diagnosis of congenital malformations among the nonwhite infants, or whether the rates are in some degree a reflection of a true difference between the two groups.

#### Mortality Rates for States

Table 4 presents the neonatal mortality rates (all races) for premature birth in each State during the years 1935-48. It should be noted that wholly aside from differences in registration practices, the statistical reliability of the rates varies widely. The rates for eight States (California, Illinois, Michigan, New York, Ohio, North Carolina, Pennsylvania, and Texas) are quite reliable, inasmuch as over 100,000 births occurred in each of these States during 1948. In the other States the numbers of births differ widely and the reliability of the rates varies accordingly. Especially for the 11 States where fewer than 20,000 births occurred (Arizona, Delaware, Idaho, Montana, Nevada, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont and Wyoming), the rates are probably not reliable enough to be certain that an apparent difference between the trend for a State and the trend for the country as a whole is significant statistically.

Although the trends are uncertain for the smaller States, it is nevertheless possible to see whether a small State's rates have, on the whole, averaged higher or lower than the rates for the country as a whole throughout the 1935-48 period. This is readily determined for any given State by plotting that State's rates in the left-hand panel of figure 1.

However, a factor to be considered is the attention given by the State's registrars, physicians, and other attendants to the definition of a live birth. In a few States there is reason to believe that the definition was poorly observed in the early part of the 1935-48 period, so that infants born prematurely and dying within a few hours were registered as stillbirths relatively often. In such areas the mortality rate from premature birth was spuriously low; the error may have been large, since, as we have seen, over half the registered neonatal deaths from premature birth occur in the first 24 hours after delivery. During recent years observance of the definition of a live birth has been improving in several of the areas where it was formerly poor, especially through the efforts of State and local registrars collaborating with authorities interested in problems of caring for prematurely born infants. As a result, the mortality rate of such an area may appear to have increased, but this may have been due to more accurate registration rather than to any worsening of conditions affecting the survival of prematurely born infants.

Nevertheless, with the guidance which State registration officials can give in interpreting the figures, the State data in table 4 are of considerable value, at least for recent years when increased attention has been given to registration procedures and programs for improving premature infant care.

#### Causes Certified in Combination With Premature Birth

As noted earlier in this report, each death certificate coded in accordance with the Fifth Revision of the International List is assigned to a single cause of death as "primary," and that cause is the only one routinely reported in published statistics. When, for example, both premature birth and some further cause have been certified by the physician as reasons for an infant's death, the case is coded to one or the other of the causes but not to the combination of causes.

In coding infant deaths of 1949 and later years in accordance with the Sixth Revision, each of the main combinations of premature birth with another cause is being coded as such. (The only important exception to this is the combination premature birth and congenital malformations, which is always assigned to the latter cause; this combination is relatively infrequent, as will be evident from data to be presented in this section.) Examples of the various combinations coded as such in the Sixth Revision are: premature birth stated together with an intracranial or spinal injury at birth, which is coded to classification

No. 760.5; and premature birth stated in combination with postnatal asphyxia or atelectasis, which is assigned to classification No. 762.5. There are eleven more such classifications for specific causes of death stated in combination with premature birth, each one having the decimal .5 after the first three digits of the classification number. There are also two classifications for "residual" combinations; these cover the cases where causes given in combination with premature birth are poorly defined or too infrequent to warrant a separate classification. Finally, there is a classification (No. 776) for certificates on which physicians have stated no cause of death except premature birth. As may be inferred from the data presented below, cases falling in this last classification will probably be about as frequent as the total for all cases in the other 15 categories.

The total number of cases assigned to the 16 classifications involving premature birth can be tabulated as one group, and will usually be reported along with separate frequencies for each of the 16 classifications (or for whatever groupings of them prove to be most important). The total for the 16 classifications in the Sixth Revision will almost certainly be higher than the total coded to premature birth as the primary cause according to the Fifth Revision. However, the statistical relationship between these two totals will be determined from a special study by the National Office of Vital Statistics. A representative series of infant death certificates will be coded in accordance with both the Fifth and Sixth Revisions. From this study one or more "comparability ratios" will be available, and they will facilitate comparison between mortality rates for premature birth derived from the two Revisions.

Meanwhile it is instructive to sketch in some detail the information already available concerning the causes of death which physicians have been certifying in combination with premature birth. Information on these associated causes has not been published annually, but it is available for the data of 1940. For each certificate reported in that year both the primary cause of death and, where possible, the secondary cause of death were coded. A cross-tabulation of the primary and secondary causes was then prepared. This tabulation was published some years ago 3/ but has not been analyzed previously from the viewpoint of this report.

3/ The rules for coding certificates on which both premature birth and another cause of death are stated are given on page 277 of the Manual of the International List of Causes of Death (Fifth Revision) and Joint Causes of Death, Department of Commerce, Bureau of the Census, 1940. The cross tabulation showing the statistical consequences of these rules is presented in Table 21, pages 569-623, of Vital Statistics of the United States, 1940, Part I, Department of Commerce, Bureau of the Census. In this tabulation all cases involving premature birth are deaths of infants under one year of age, since no deaths of infants over that age are coded to premature birth.

In a rough way, data from the cross-tabulation of 1940 data serve to indicate what the data for 1949 and later years are likely to show concerning premature birth in combination with other causes of death. Equally important, however, is the information which the cross-tabulation can yield concerning the data on mortality from premature birth already published. At the same time, the data yield answers to frequently raised questions regarding effects of the coding rules which have been used in connection with the Fifth Revision. That is, we may show what has happened in coding a certificate of infant death in accordance with that Revision when some further cause, in addition to premature birth, was certified by the physician.

If we assume that the associations between premature birth and other causes of death have not changed since 1940, it is possible to apply the statistical associations between primary and secondary causes found in 1940 to the data on primary causes published for a later year, and thus to estimate the picture for secondary causes in the later year. Estimates of this kind for the year 1947 had already been prepared at the time of writing this report. Since the data for 1947 differ only slightly from the data for 1948 (although the situation in both these years differs markedly from the situation in 1940), the 1947 figures are used in this report.

The cross-tabulation of 1940 data showed that in that year a total of 110,984 infant deaths (under 1 year) were reported, and among them 32,346 were coded to premature birth as the primary cause of death. In addition to the 32,346, however, the total included 5,448 infant deaths which were coded with premature birth as the secondary cause (and with another cause which the physician had stated on the certificate assigned as primary). Thus the total number of cases in which physicians had certified that premature birth was at least one of the causes of death was 37,794, or 17 percent more than the data on primary causes of death would indicate.

For the year 1947, the published data show that 41,053 infant deaths were reported in the official tabulations, as due to premature birth, i. e., this number were assigned to premature birth as primary. If we apply the 1940 data on secondary causes, proportionately, to the data of 1947, we find that 6,940 cases would have been coded with premature birth as secondary if secondary causes had been coded in 1947. Of course, none of these 6,940 cases appeared to involve premature birth in the published tabulations since in each case some other cause was coded as primary.<sup>1)</sup>

Thus for the year 1947 we may judge that, altogether, there were probably some 47,993 infant deaths for which the physicians had stated that premature birth was a cause. Since only 41,053 certificates were finally assigned to premature birth as the primary cause of death, we wish to see what happened during the coding process to produce this result.

For brevity the figures cited below are stated as though they represented the actual situation in 1947, but it will be understood that most of the figures are estimates derived from the 1940 experience. The assumptions involved in making the estimates, and the infrequent cases where three causes of death were originally stated by the physician, will be discussed at the end of this section. Also, while the detailed frequencies given in the next few paragraphs make the picture more explicit for certain causes, e.g., those discussed in paragraphs numbered 4-6 below, the reader may well skip to the discussion of figure 4 if interest centers mainly on the general significance of the facts.

In the first place, premature birth was the only important cause of death given on 27,530, or well over half of the 47,993 certificates. For this group of cases, which is by far the most important one from a statistical viewpoint, nothing could have been coded concerning secondary causes.

For each of the remaining 20,463 cases, both premature birth and some other significant cause of death were stated on the certificate. We may list the first six of these causes and their classification numbers in the Fifth Revision by order of their frequency in combination with premature birth. We will then show what happened in coding each of the groups. The main causes occurring in combination with premature birth were:

Congenital debility (No. 158)  
Other diseases peculiar to the first year  
(No. 161)  
Injury at birth (No. 160)  
Congenital malformations  
(No. 157)  
Diseases of the respiratory system  
(Nos. 104-114)  
Diarrhea, enteritis, etc.  
(No. 119)

1. Congenital debility and premature birth were stated as the causes of death on 6,064 certificates. All of these cases were coded to premature birth.

2. One of the "other diseases peculiar to the first year" and premature birth were given in 5,755 cases. All of these cases were likewise coded to premature birth. As already noted the cause group "other diseases peculiar to the first year" is heterogeneous; it includes asphyxia and atelectasis, certain types of infections and various minor causes, but is exclusive of congenital debility, injury at birth, and congenital malformations.

3. Injury at birth and premature birth were stated in 3,827 cases. All of these cases were coded to injury at birth.

4. Congenital malformations and premature birth were given in 1,763 cases. These cases were coded in two different ways depending on the type of congenital malformation stated; the number of cases assigned to premature birth was 438, while the number assigned to congenital malformations was 1,325.

5. One of the "diseases of the respiratory system" and premature birth were stated in 1,371 cases. Of these, the number coded to premature birth was 751, while the number coded to diseases of the respiratory system was 620.

6. One of the diseases in the cause group "diarrhea, enteritis, etc." and premature birth were given in 570 cases. Of these, the number coded to premature birth was 112, while the number coded to diarrhea, enteritis, etc. was 458.

7. One of the numerous other specified causes were stated in combination with premature birth in 1,113 cases. Of these, the number assigned to the premature birth was 534, while the number assigned to other specified causes was 579. If desired, the distribution of these cases by separate causes may be examined in the detailed cross-tabulation to which reference was made above. However, the 1,113 cases involve a large number of different cause groups, and it may be said that no single group among them shows an important statistical association with premature birth.

The cases so far cited account for both the 41,053 certificates finally coded to premature birth and also the 6,940 certificates on which the physician had given premature birth as one cause, but which were coded and reported officially as due to some other cause.

Among the other 71,180 certificates, there were 4,095 which did not contain statements permitting assignment to any specific cause, and these cases were coded to "ill-defined or unknown" causes. No doubt some of these deaths involved premature birth, but the proportion is unknown. For the remaining 67,085 certificates the cause or causes of death were stated, but premature birth was neither a primary nor a secondary cause. They round out the total of 119,173 infant deaths reported for the year 1947.

For figure 4, the picture has been simplified by considering a sample of 1,000 cases which are representative, in due proportions, with respect to each of the important cause groupings among all certificates of infant death reported in 1947. To obtain the frequencies shown in this figure, the detailed frequencies discussed above were divided by 119,173 and each quotient was multiplied by 1,000.

The left-hand bar in the figure shows the main groups of certificates according to the causes of death originally stated on them. The right-hand bar shows the same certificates after coding. The figure as a whole indicates the procedure used for selecting the primary cause of death so far as the allocation of cases involving premature birth is concerned.

In the left-hand bar, the 403 cases between the heavy lines represent the certificates on which physicians had stated that premature birth was a cause of death. It is seen that in 232 cases, or on more than half of these certificates, the physicians stated no cause of death except premature birth.

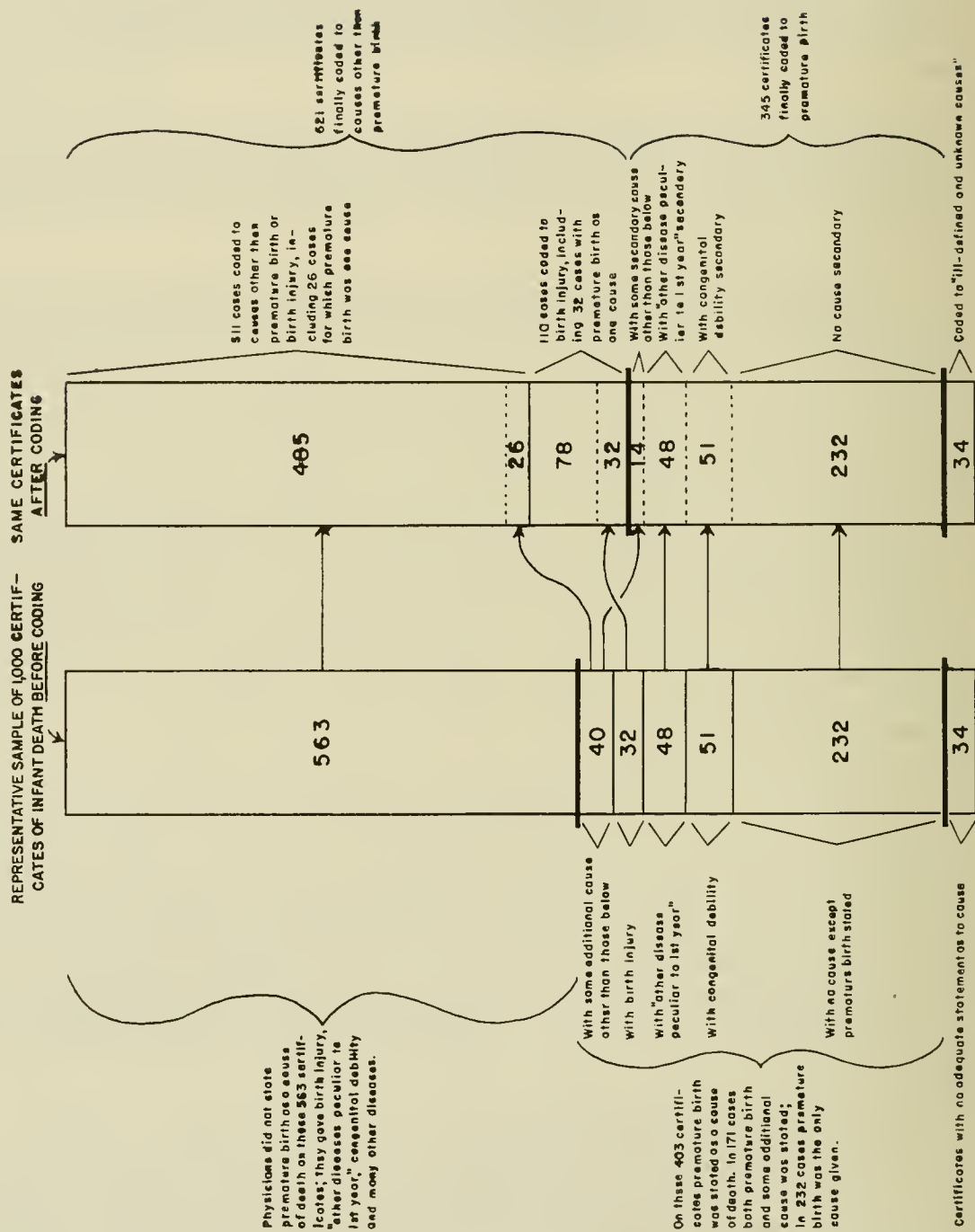
In 51 out of the 1,000 cases, both congenital debility and premature birth had been certified as the causes of death, and all these cases were coded to premature birth. In 48 cases another "disease peculiar to the first year" was stated in addition to premature birth, and these were likewise coded to premature birth. But for the 32 certificates with both injury at birth and premature birth stated as causes, the cases were coded to injury at birth.

It has been necessary to group the causes discussed in paragraphs 4-6 above into the residual group discussed there in paragraph 7, as otherwise figure 4 would become too complex. It is nevertheless clear that among the 40 cases shown just below the heavy line through the middle of the left-hand bar, no single cause would be sizeable, since this residual group as a whole accounts for scarcely 10 percent (40/403) of all certificates on which physicians stated premature birth as a cause of death.

The positions of the heavy lines through the two bars show that only 345 cases were coded to premature birth out of all 403 certificates on which that cause was originally given. Of the 58 cases assigned to some cause other than premature birth, more than half were coded to injury at birth. These were the 32 certificates on which both premature birth and injury had been stated. It is noteworthy that among the 110 certificates finally coded to injury at birth, there were 32 on which the physicians had stated that premature birth was also a cause of death. In the large group of 511 cases (485+26) shown in the upper part of the right-hand bar, there is no cause having such a marked association with premature birth as that for injury at birth.

Of the residual group of 40 cases, 14 were coded to premature birth, while the remaining 26 were assigned to other causes stated on the certificate. Thus, in effect, the distribution of the residual group was roughly proportional to the original frequencies of certificates on which premature birth was and was not given as one of the causes of death.

**FIG. 4—CERTIFICATES OF INFANT DEATH BEFORE AND AFTER CODING, SHOWING CAUSES OF DEATH OCCURRING IN COMBINATION WITH PREMATURE BIRTH: U. S. 1947**  
(Data estimated from findings on causes associated with premature birth in a special study of 1940 cases)



As regards assumptions and qualifications, it should be noted that certain frequencies in the published cross-tabulation of 1940 data were corrected for minor coding errors before the figures were used to estimate the 1947 frequencies. For example, although the published data show 32,346 deaths attributed to premature birth as the primary cause, a check of the coding rules against the frequencies of the main cause combinations in the cross-tabulation shows that the number attributable to premature birth as the primary cause would have been closer to 32,327 if the rules had been followed more exactly. A frequency of coding errors of this order was to be expected in view of the fact that the rules were relatively new when the special study was undertaken. Adjustment for the errors was considered desirable on the assumption that the frequency of coding errors had been reduced substantially by 1947.

Certificates on which premature birth is stated as one of three causes of death fall into two groups. In the larger group premature birth is found to have priority over one or both of the other two causes, so that premature birth is either the primary or secondary cause by the coding rules. It is clear that the 1940 data, and accordingly the 1947 estimates also, have taken these cases into account.

In the other group premature birth is found by the rules to be the "tertiary" cause. The frequency of such cases is not known, and the 1947 estimates do not take account of them, because tertiary causes were not tabulated in the 1940 study. However, from consideration of the priorities given premature birth by the coding rules and consultation with persons experienced in coding certificates of infant death, it appears that the frequency of these cases is well below one percent of all the certificates on which premature birth is stated as a cause of death.

Of the various frequencies represented in figure 4, the only ones known to be correct are those total frequencies which fall within the full horizontal lines through the right-hand bar. For example, the 110 cases shown as finally coded to injury at birth represent the 11.0 percent of infant deaths which were actually coded to that cause as primary in 1947. Similarly, it is known that 3.4 percent were coded to ill-defined and unknown causes; that 34.5 percent were coded to premature birth, and that 51.1 percent were coded to other causes. All the other frequencies shown in the figure were estimated by starting with these known frequencies, and computing the others on the assumption that the proportionate relationships among the causes associated with premature birth did not change from 1940 to 1947.

This assumption probably holds fairly well for the larger groups of associated causes, i. e., injury at birth, congenital debility,

congenital malformations, and "other diseases peculiar to the first year." It is known to be an inexact assumption for the smaller cause groups associated with premature birth, particularly with respect to diseases of the respiratory and digestive systems, for which the mortality rates have shown substantial declines since 1940. However, since these causes do not bulk large in the 40 cases of residual cause combinations (shown below the heavy line through the middle of the left-hand bar in the figure) it is likely that, on the whole, the estimated frequencies are fairly close to the real frequencies for 1947.

\*9317,316 A104

**CHILDREN'S BUREAU**

**STATISTICAL SERIES**

**NUMBER**

**7**

**Personnel  
in Public  
Child Welfare  
Programs  
1950**



## PERSONNEL IN PUBLIC CHILD WELFARE PROGRAMS, 1950 1/

An increase of 8 percent during the year in the professional employees (executives, social workers, specialists) devoting full time to public child welfare programs brought the total number to over 4,100 by June 1950. 2/ Four-fifths of the total professional staff increase resulted from the employment of more child welfare caseworkers. In June 1950, there were a total of 3,047 caseworkers providing direct services to children. In addition, nearly 1,300 full-time clerical employees devoted all of their time to facilitating the public child welfare service program.

Although this report is focused on the full-time professional child welfare employees since they serve most of the children helped through the public child welfare programs, there are a substantial number of general welfare employees providing casework services to children. These employees spend most of their time on public assistance, but, in addition, work with or on behalf of children in families which are not receiving assistance. In June 1950, 3,316 caseworkers and director-workers were in this group.

The full-time professional child welfare employees of State and local agencies devote all of their time to work with or on behalf of children. They provide services to children in their own homes who have emotional problems or are neglected, abused or in danger of becoming delinquent, children who are being adopted, children who require foster care because they cannot remain in their own homes, and unmarried mothers and their babies born out of wedlock.

Four States (Illinois, Wisconsin, North Carolina and Tennessee) accounted for about half of the total national increase in the number of professional child welfare employees between 1949 and 1950. Part of the increase in Illinois was the result of a reorganization within the department of welfare that brought a large group of parole workers within the coverage of this report.

Full-time public child welfare caseworkers (and director-workers) were providing service to children in 1,330 (42 percent) of the 3,187 counties in the United States and its territories in June 1950. In these 1,330 counties a full-time worker was either assigned exclusively to one county or covered several counties. The counties without full-time child welfare caseworkers or director-workers had the part-time services of general public welfare workers or were completely without public child welfare services.

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1/ Report prepared by Mignon Sauber and Jack Wiener, Program Research Branch, Division of Research.

2/ See table 1 on page 8 for limitations of data.

More State and local funds were used for staff

Child welfare employees paid from State and local funds increased 11 percent since June 1949 <sup>3/</sup>, indicating the real progress made by States and localities in mustering their own resources to expand their child welfare programs to meet the needs of children. In addition, \$3.5 million in Federal funds was apportioned among the States under the provisions of title V, part 3 of the Social Security Act for strengthening and extending services to children in areas predominantly rural or in other areas of special need. Although there had been annual increases in the number of full-time professional child welfare employees paid from Federal funds from year to year since 1946, the trend tapered off in 1950, when, as the following table indicates, the number increased by only 3, from 1,036 in 1949 to 1,039 in 1950.

Source of funds for salary and travel	Number of full-time professional child welfare employees <sup>a/</sup>		
	1950	1949	Percent change 1949-50
Total.....	4,000	3,714	+8
Federal, whole or part...	1,039	1,036	0
State and local only.....	2,961	2,678	+11

<sup>a/</sup> Excludes Missouri and Tennessee. Data for 1949 and 1950 are not comparable. See footnotes table 4, page 11.

Although during this period Federal funds were used less for salaries than during the preceding year, there was an increase in the use of Federal funds for educational leave, professional conferences and institutes and special State services and projects designed to strengthen and extend services to children. Decreases in the number of child welfare employees paid from Federal child welfare service funds were especially evident in West Virginia and Iowa, where there were 45 and 19 fewer respectively. In Missouri, a decrease of 15 in the number of employees paid from Federal child welfare service funds reflected a pay-roll adjustment necessary to keep within the Federal funds available for the year. On the other hand some States used Federal child welfare service funds to increase the number of their full-time professional child welfare personnel. North Carolina and Illinois increased the number of child welfare employees paid in whole or part from Federal child welfare service funds by 22 and 16 respectively.

Vacant positions decreased but over 500 jobs were still unfilled

Another good sign so far as adequate provision of child welfare service is concerned may be found in the 5 percent decrease in the vacant professional

<sup>3/</sup> Excludes Missouri and Tennessee. Data for 1949 and 1950 are not comparable. See footnotes table 4, page 11.

child welfare positions in June 1950 as compared with the previous year. This decrease in vacancies occurred despite an increase of nearly 300 in the number of professional child welfare positions (employees plus vacancies). Notwithstanding this progress, there was still a serious problem in filling vacancies. In June 1950, there was one vacancy for every 11 professional child welfare positions.

These over-all figures hide a significant difference among types of positions: Child welfare caseworker vacancies were 11 percent fewer in June 1950, but supervisory and consultant vacancies increased--the latter by nearly a fourth. One in every five consultant positions was vacant in June 1950.

High vacancy rates indicate the continuing difficulty in obtaining qualified personnel for child welfare jobs. One of the ways in which agencies are attempting to meet this problem is through the use of Federal child welfare service funds for educational leave. To fill supervisory and consultant positions, experienced personnel who already have some study in graduate schools of social work are encouraged to complete their professional training with the aid of Federal child welfare service funds. To increase the numbers of local child welfare personnel, persons are recruited directly from colleges, and after a period of orientation in which the agency evaluates their potentiality for social work, stipends for graduate study in a school of social work are granted. These workers, on return to the agency, gain experience in providing services to children and in time also become qualified for supervisory and consultant positions.

The agencies with the smallest staffs continued to have, proportionately, the most vacancies, as the following table indicates.

Number of professional employees in June 1950	Number of State agencies	Total professional CW positions	Total positions vacant	Vacancies per 100 positions
All States.....	53	4,663	517	11
Less than 25.....	13	202	46	23
25-49.....	12	453	75	17
50-74.....	8	531	99	19
75-99.....	6	510	44	9
100 or more.....	14	2,967	253	9

There was no change in the vacancy rate for clerical positions--8 out of every 100 were vacant in both June 1949 and June 1950.

Vacancy rates as a test of an agency's staffing difficulties must be used with caution. A low rate must be examined against changes in the agency's budget. Cuts in appropriations for services and administration might result in a very low vacancy rate when positions are eliminated. In these situations there may be fewer vacancies but the over-all result is less personnel available for services to children. High rates on the other hand may indicate recognition by the States of the need for extension of their programs.

#### A large proportion of workers were new to their jobs

Staff turnover is closely allied with vacancies as a problem in providing services to children. The volume of accessions and separations of professional child welfare personnel indicates the extent to which personnel have come into child welfare positions or have left these positions. Accessions may also represent expansion in program while separations may reflect program cut-backs. When related to total staff, these measures indicate the proportion of staff whose services were available to the agency for only part of a year.

One out of every 3 professional employees in June 1950 had come to the job within the preceding year. This same situation existed in the year ending June 1949. In both years, only about 2 out of 3 employees working in June were employed in the agency throughout the preceding 12 months.

The administrative problems attendant on a large turnover in or expansion of staff were probably greatest in the 7 States (Arizona, Idaho, Kansas, Mississippi, Nevada, South Dakota, and Tennessee) where at least half of the persons in professional child welfare positions had been on the job less than a year. Certainly both the quality and quantity of social services are affected by staff turnover. Uncovered caseloads, the assignment of additional cases to workers already responsible for full loads, constant changes in the staff providing service, and the curtailment of regular supervisory and consultative services all but inhibit the development of an adequate child welfare program.

#### Salaries increased slightly

Closely associated with the problem of vacancies and excessive staff-turnover is the salary level--especially as it relates to the educational and experience requirements of the job.

The median monthly salary for full-time child welfare caseworkers increased only 2 percent from June 1949 to June 1950 (\$223 as compared with \$227). Salaries varied considerably among the States. The range in average (median) salary for the 19 States with at least 50 caseworkers was from \$141 per month in Puerto Rico to over \$300 per month in Massachusetts and the District of Columbia.

State	Median Monthly Salary June 1950
District of Columbia.....	Over \$300
Massachusetts.....	Over 300
Michigan.....	\$293
California.....	287
Wisconsin.....	282
Washington.....	278
Minnesota.....	267
Missouri.....	229
Illinois.....	223
New York.....	223
Kentucky.....	218
Ohio.....	216
Tennessee.....	215
Connecticut.....	215
North Carolina.....	212
Virginia.....	210
Indiana.....	209
West Virginia.....	179
Puerto Rico.....	141

As might be expected, salaries for child welfare consultants, supervisors, and executives were somewhat above those for caseworkers. In June 1950 the median salary for supervisors was \$298 per month, thus exceeding the median caseworker salary of \$227 by more than 30 percent. Supervisors had received a median monthly salary of \$294 in June 1949. Consultants and executives had median monthly salaries of more than \$300 in both 1949 and 1950.

Qualified child welfare personnel cannot be recruited or retained unless salaries are adequate. Salary is but one factor, however, in attracting qualified persons to jobs. A worker, especially if she has had professional training, wants a job where she can continue to learn and to develop her skills under good supervision in an agency with high standards of service.

#### Child welfare service loads were smaller

The average (median) number of children assigned for service to full-time child welfare workers decreased slightly from 63 in June 1949 to 59 in June 1950. These data apply to the 2,238 full-time child welfare caseworkers and director-workers who were reported as providing direct services to or on behalf of individual children and who were carrying service loads or "case-loads." In addition, a little more than 12 percent of the full-time workers were responsible for such related services as home-finding, intake, licensing, etc.

Despite the decrease in the national average, 35 States still had some workers serving 100 or more children. In all, 15 percent of the 2,238 child welfare workers assigned service loads were responsible for 100 or more children. A similar proportion had fewer than 25 children to serve. Among States with at least 50 child welfare caseworkers, the median number of children per service load ranged from 27 children in Tennessee to 106 children in Puerto Rico. Illinois (38 children), and Michigan (39 children), were among the States with small service loads. California and Massachusetts (each averaged 77 children) and North Carolina (78 children) were among the States with large service loads. 4/

Although there has been an over-all decrease in the average number of children per worker, the difference between average service loads of workers serving single county areas without large cities and those serving counties which have large cities continues.

Area of service	Median number of children per worker with service load	
	1950	1949
All areas.....	59	63
Counties with cities of 100,000 or more population...	55	55
Counties with no city of 100,000 or more population...	65	74

This gap is narrowing, however, because of the substantial decrease in the service loads of workers in small cities, towns and rural areas. Another promising sign is the decrease from 53 to 45 in the median number of children served by workers responsible for areas larger than a single county. Smaller service loads, of course, make it possible to provide more adequate services to children.

Many factors affect the size of the service load. Among these are the kinds of service offered (service to children in their own homes or foster homes, adoption investigations and placements, protective services, etc.) as well as the structure and organization of the child welfare division (separate home finders and intake personnel, etc.), standards of work performance

4/ Individual service loads were not reported for the 556 child welfare workers in New York.

set by the agency, geographic area covered, etc. It is generally recognized, however, that adequate services to children cannot be provided when very large numbers of children are assigned to one worker.

In spite of the promising factors evident in June 1950, much needs to be done in expanding further the availability of public social services for children. There are still many staff vacancies, especially in supervisory and consultant positions. Staff turnover is high; services, therefore, are interrupted. Many caseloads are still too large to permit the individual attention that should be afforded each child. Most important of all, too many areas are still without the services of full-time professional child welfare personnel.

Table 1.— EMPLOYEES IN THE PUBLIC CHILD WELFARE PROGRAMS, BY STATE AND TYPE OF POSITION, JUNE 1950 a/

State	Child welfare employees - devoting full time to CWS									General welfare workers - devoting some time to CWS		
	Total	Professional child welfare employees							Clerks	Total	Director-workers	Case workers
		Total	Directors	Director-workers	Case workers	Super-visors	Consult-ants	Special-ists				
Total.....	5,424	4,146	126	107	3,047	476	297	93	1,278	3,316	850	2,466
Alabama.....	58	51	1	—	40	2	7	1	7	336	40	296
Alaska.....	4	4	—	—	4	—	—	—	—	5	5	—
Arizona.....	23	18	1	—	13	1	3	—	5	7	7	—
Arkansas.....	40	30	1	—	22	2	5	—	10	30	28	2
California.....	b/ 118	91	4	—	65	8	14	—	27	29	1	28
Colorado.....	39	34	1	—	20	2	8	3	5	25	24	1
Connecticut....	175	125	8	1	104	10	2	—	50	—	—	—
Delaware.....	16	16	—	—	14	2	—	—	—	2	—	2
Dist. of Col....	102	71	1	—	50	11	—	9	31	1	—	1
Florida.....	65	44	1	—	29	8	6	—	21	c/ 423	—	423
Georgia.....	62	46	1	—	35	1	8	1	16	30	23	7
Hawaii.....	33	28	1	—	21	4	2	—	5	88	—	88
Idaho.....	9	8	1	—	6	—	1	—	1	23	11	12
Illinois.....	296	243	2	—	189	35	11	6	53	1	—	1
Indiana.....	225	187	3	—	158	19	7	—	38	114	40	74
Iowa.....	66	50	1	—	33	13	—	3	16	67	53	14
Kansas.....	39	25	1	—	11	1	12	—	14	3	—	3
Kentucky.....	121	73	4	29	22	6	9	3	48	—	—	—
Louisiana.....	92	70	1	—	48	11	10	—	22	b/	—	—
Maine.....	64	44	6	—	37	—	—	1	20	—	—	—
Maryland.....	b/ 18	18	—	—	15	2	—	1	—	b/	—	—
Massachusetts..	237	174	3	—	147	23	—	1	63	4	2	2
Michigan.....	145	108	4	—	71	6	17	10	37	66	—	66
Minnesota.....	261	196	3	—	156	29	7	1	65	155	45	110
Mississippi....	87	56	2	—	47	5	2	—	31	174	62	112
Missouri.....	105	78	2	—	57	17	1	1	27	156	59	97
Montana.....	19	17	1	—	9	—	7	—	2	39	30	9
Nebraska.....	48	36	2	—	23	3	7	1	12	119	66	53
Nevada.....	7	5	—	—	4	1	—	—	2	—	—	—
New Hampshire..	15	14	1	—	11	2	—	—	1	24	—	24
New Jersey.....	15	10	1	5	2	—	—	2	5	133	—	133
New Mexico.....	33	23	1	—	16	4	1	1	10	28	10	18
New York.....	1,007	750	12	—	556	108	68	6	257	3	—	3
North Carolina..	92	82	1	—	67	3	8	3	10	320	51	269
North Dakota...	12	11	—	—	7	—	2	2	1	69	45	24
Ohio.....	392	305	18	37	190	34	6	20	87	86	27	59
Oklahoma.....	72	47	4	—	33	2	6	2	25	5	—	5
Oregon.....	74	53	3	—	37	6	7	—	21	89	13	76
Pennsylvania...	b/ 85	58	5	14	33	—	4	2	27	—	—	—
Puerto Rico....	88	87	2	—	61	18	3	3	1	58	58	—
Rhode Island...	53	40	1	—	31	7	—	1	13	—	—	—
South Carolina..	37	35	1	—	29	1	4	—	2	245	—	245
South Dakota...	25	21	1	—	18	1	—	1	4	4	—	4
Tennessee.....	98	68	1	—	56	1	8	2	30	81	28	53
Texas.....	110	67	5	15	31	8	8	—	43	b/ 1	—	1
Utah.....	26	23	1	—	17	3	2	—	3	—	—	—
Vermont.....	21	17	1	—	16	—	—	—	4	—	—	—
Virgin Islands..	8	6	1	—	4	1	—	—	2	2	—	2
Virginia.....	119	98	2	—	78	11	5	2	21	185	90	95
Washington.....	109	108	—	—	91	14	3	—	1	27	6	21
West Virginia..	139	114	1	—	96	13	4	—	25	—	—	—
Wisconsin.....	212	156	6	6	113	17	10	4	56	30	6	24
Wyoming.....	8	7	1	—	4	—	2	—	1	29	20	9

a/ As of the last pay-roll period in June, 1950.

b/ Report did not include all employees.

c/ Includes all public assistance workers who may carry child welfare services when there are such cases in their areas, although at any one time there will be some workers who are not providing child welfare services.

Table 2.— PUBLIC CHILD WELFARE EMPLOYEES, BY SOURCE OF FUNDS FOR SALARIES OR TRAVEL,  
BY STATE, JUNE 1950 <sup>a/</sup>

State	Paid entirely from State and local funds			Paid in whole or in part from Federal CWS funds		
	Total	Professional Employees	Clerical Employees	Total	Professional Employees	Clerical Employees
Total.....	4,223	3,038	1,185	1,201	1,108	93
Alabama.....	11	4	7	47	47	—
Alaska.....	—	—	—	4	4	—
Arizona.....	12	7	5	11	11	—
Arkansas.....	6	1	5	34	29	5
California.....	88	61	27	30	30	—
Colorado.....	27	22	5	12	12	—
Connecticut.....	158	111	47	17	14	3
Delaware.....	—	—	—	16	16	—
Dist. of Col.....	98	67	31	4	4	—
Florida.....	43	22	21	22	22	—
Georgia.....	20	15	5	42	31	11
Hawaii.....	25	20	5	8	8	—
Idaho.....	1	—	1	8	8	—
Illinois.....	263	211	52	33	32	1
Indiana.....	210	176	34	15	11	4
Iowa.....	48	32	16	18	18	—
Kansas.....	14	—	14	25	25	—
Kentucky.....	81	34	47	40	39	1
Louisiana.....	69	47	22	23	23	—
Maine.....	54	34	20	10	10	—
Maryland.....	—	—	—	18	18	—
Massachusetts.....	233	171	62	4	3	1
Michigan.....	122	88	34	23	20	3
Minnesota.....	228	170	58	33	26	7
Mississippi.....	31	—	31	56	56	—
Missouri.....	74	47	27	31	31	—
Montana.....	7	5	2	12	12	—
Nebraska.....	35	26	9	13	10	3
Nevada.....	2	—	2	5	5	—
New Hampshire.....	8	7	1	7	7	—
New Jersey.....	3	—	3	12	10	2
New Mexico.....	22	12	10	11	11	—
New York.....	990	737	253	17	13	4
North Carolina.....	17	13	4	75	69	6
North Dakota.....	2	1	1	10	10	—
Ohio.....	365	279	86	27	26	1
Oklahoma.....	46	22	24	26	25	1
Oregon.....	60	39	21	14	14	—
Pennsylvania.....	30	11	19	55	47	8
Puerto Rico.....	40	39	1	48	48	—
Rhode Island.....	45	32	13	8	8	—
South Carolina.....	5	4	1	32	31	1
South Dakota.....	8	4	4	17	17	—
Tennessee.....	60	30	30	38	38	—
Texas.....	46	24	22	64	43	21
Utah.....	14	11	3	12	12	—
Vermont.....	12	8	4	9	9	—
Virgin Islands.....	—	—	—	8	6	2
Virginia.....	79	59	20	40	39	1
Washington.....	95	94	1	14	14	—
West Virginia.....	126	101	25	13	13	—
Wisconsin.....	186	136	50	26	20	6
Wyoming.....	4	4	—	4	3	1

<sup>a/</sup> For scope and limitations of data, see table 1.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 3.— PUBLIC CHILD WELFARE EMPLOYEES IN PROFESSIONAL POSITIONS, BY SOURCE OF FUNDS FOR SALARIES OR TRAVEL, BY STATE AND TYPE OF POSITION, JUNE 1950 a/

State	Paid entirely from State and local funds						Paid in whole or in part from Federal CWS funds					
	Total	Directors	Case-workers b/	Super- visors	Consult- ants	Special- ists	Total	Directors	Case- workers c/	Super- visors	Consult- ants	Special- ists
Total....	3,038	93	2,398	365	126	56	1,108	33	756	111	171	37
Alabama.....	4	1	1	2	—	—	47	—	39	—	7	1
Alaska.....	—	—	—	—	—	—	4	—	—	—	—	—
Arizona.....	7	1	6	—	—	—	11	—	7	1	3	—
Arkansas.....	1	—	—	—	1	—	29	1	22	2	4	—
California.....	61	3	50	4	4	—	30	1	15	4	10	—
Colorado.....	22	1	19	—	1	1	12	—	1	2	7	2
Connecticut....	111	7	93	9	2	—	14	1	12	1	—	—
Delaware.....	—	—	—	—	—	—	16	—	14	2	—	—
Dist. of Col....	67	1	50	8	—	8	4	—	—	3	—	1
Florida.....	22	1	16	2	3	—	22	—	13	6	3	—
Georgia.....	15	—	13	1	—	1	31	1	22	—	8	—
Hawaii.....	20	—	17	3	—	—	8	1	4	1	2	—
Idaho.....	—	—	—	—	—	—	8	1	6	—	1	—
Illinois.....	211	2	165	28	10	6	32	—	24	7	1	—
Indiana.....	176	2	154	18	2	—	11	1	4	1	5	—
Iowa.....	32	1	24	4	—	3	18	—	9	9	—	—
Kansas.....	—	—	—	—	—	—	25	1	11	1	12	—
Kentucky.....	34	4	22	6	—	2	39	—	29	—	9	1
Louisiana.....	47	1	33	11	2	—	23	—	15	—	8	—
Maine.....	34	5	28	—	—	1	10	1	9	—	—	—
Maryland.....	—	—	—	—	—	—	18	—	15	2	—	1
Massachusetts..	171	3	147	21	—	—	3	—	—	2	—	1
Michigan.....	88	4	63	6	8	7	20	—	8	—	9	3
Minnesota.....	170	3	137	27	3	—	26	—	19	2	4	1
Mississippi....	—	—	—	—	—	—	56	2	47	5	2	—
Missouri.....	47	1	39	5	1	1	31	1	18	12	—	—
Montana.....	5	1	4	—	—	—	12	—	5	—	7	—
Nebraska.....	26	1	21	3	1	—	10	1	2	—	6	1
Nevada.....	—	—	—	—	—	—	5	—	4	1	—	—
New Hampshire...	7	1	5	1	—	—	7	—	6	1	—	—
New Jersey.....	—	—	—	—	—	—	10	1	7	—	—	2
New Mexico.....	12	—	11	—	—	1	11	1	5	4	1	—
New York.....	737	11	555	108	57	6	13	1	1	—	11	—
North Carolina..	13	1	8	1	2	1	69	—	59	2	6	2
North Dakota....	1	—	1	—	—	—	10	—	6	—	2	2
Ohio.....	279	17	219	30	3	10	26	1	8	4	3	10
Oklahoma.....	22	1	18	1	1	1	25	3	15	1	5	1
Oregon.....	39	1	31	4	3	—	14	2	6	2	4	—
Pennsylvania....	11	—	11	—	—	—	47	5	36	—	4	2
Puerto Rico....	39	1	30	8	—	—	48	1	31	10	3	3
Rhode Island....	32	1	26	5	—	—	8	—	5	2	—	1
South Carolina..	4	1	2	1	—	—	31	—	27	—	4	—
South Dakota....	4	1	2	—	—	1	17	—	16	1	—	—
Tennessee.....	30	1	23	1	4	1	38	—	33	—	4	1
Texas.....	24	4	10	6	4	—	43	1	36	2	4	—
Utah.....	11	1	6	3	1	—	12	—	11	—	1	—
Vermont.....	8	1	7	—	—	—	9	—	9	—	—	—
Virgin Islands..	—	—	—	—	—	—	6	1	4	1	—	—
Virginia.....	59	1	49	6	1	2	39	1	29	5	4	—
Washington.....	94	—	81	11	2	—	14	—	10	3	1	—
West Virginia...	101	1	91	7	2	—	13	—	5	6	2	—
Wisconsin.....	136	5	106	14	8	3	20	1	13	3	2	1
Wyoming.....	4	—	4	—	—	—	3	1	—	—	2	—

a/ For scope and limitations of data, see table 1.

b/ Includes 48 director-workers.

c/ Includes 59 director-workers.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 4.— PUBLIC CHILD WELFARE EMPLOYEES IN PROFESSIONAL POSITIONS, BY STATE, AND BY SOURCE OF FUNDS FOR SALARIES OR TRAVEL, JUNE 1949 and 1950

State	Total employees		Employees whose salaries or travel funds came from—			
			State and local funds entirely		Federal CWS funds (all or part)	
	1950	1949	1950	1949	1950	1949
Total.....	4,146	3,836	3,038	2,708	1,108	1,128
Alabama.....	51	53	4	5	47	48
Alaska.....	4	5	—	—	4	5
Arizona.....	18	25	7	11	11	14
Arkansas.....	30	30	1	1	29	29
California. <sup>a/</sup> ....	91	95	61	68	30	27
Colorado.....	34	31	22	22	12	9
Connecticut.....	125	114	111	104	14	10
Delaware.....	16	15	—	—	16	15
Dist. of Col.....	71	64	67	60	4	4
Florida.....	44	38	22	16	22	22
Georgia.....	46	45	15	12	31	33
Hawaii.....	28	28	20	19	8	9
Idaho.....	8	7	—	—	8	7
Illinois.....	243	172	211	156	32	16
Indiana.....	187	169	176	160	11	9
Iowa.....	50	45	32	8	18	37
Kansas.....	25	22	—	—	25	22
Kentucky.....	73	63	34	27	39	36
Louisiana.....	70	60	47	36	23	24
Maine.....	44	47	34	29	10	18
Maryland... <sup>a/</sup> ...	18	18	—	—	18	18
Massachusetts....	174	181	171	167	3	14
Michigan.....	108	99	88	79	20	20
Minnesota.....	196	198	170	170	26	28
Mississippi.....	56	42	—	—	56	42
Missouri.....	78	76	47	30	<sup>b/</sup> 31	46
Montana.....	17	18	5	10	12	8
Nebraska.....	36	33	26	24	10	9
Nevada.....	5	11	—	—	5	11
New Hampshire....	14	14	7	4	7	10
New Jersey.....	10	10	—	—	10	10
New Mexico.....	23	24	12	13	11	11
New York.....	750	739	737	720	13	19
North Carolina...	82	60	13	13	69	47
North Dakota.....	11	12	1	2	10	10
Ohio.....	305	287	279	269	26	18
Oklahoma.....	47	46	22	24	25	22
Oregon.....	53	43	39	31	14	12
Pennsylvania. <sup>a/</sup> ..	58	51	11	11	47	40
Puerto Rico.....	87	80	39	41	48	39
Rhode Island.....	40	35	32	27	8	8
South Carolina...	35	34	4	5	31	29
South Dakota.....	21	17	4	—	17	17
Tennessee.....	68	46	30	—	38	<sup>c/</sup> 46
Texas.....	67	69	24	22	43	47
Utah.....	23	22	11	12	12	10
Vermont.....	17	22	8	10	9	12
Virgin Islands...	6	6	—	—	6	6
Virginia.....	98	92	59	60	39	32
Washington.....	108	105	94	90	14	15
West Virginia....	114	103	101	45	13	58
Wisconsin.....	156	111	136	92	20	19
Wyoming.....	7	4	4	3	3	1

<sup>a/</sup> Report for 1949 and 1950 did not include all full-time child welfare employees paid entirely from local funds.

<sup>b/</sup> In June 1950, a pay-roll adjustment reduced the number of employees paid from Federal CWS funds to keep expenditures of Federal funds within the amount available for the fiscal year.

<sup>c/</sup> In June 1949, all child welfare personnel were paid from Federal CWS funds, because State funds were exhausted.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 5.— VACANT CHILD WELFARE POSITIONS IN THE PUBLIC WELFARE PROGRAMS, BY STATE  
AND TYPE OF POSITION, JUNE 1950 <sup>a/</sup>

State	Total	Professional child welfare positions						Clerks
		Total	Directors	Caseworkers <sup>b/</sup>	Supervisors	Consultants	Specialists	
Total.....	633	517	10	360	54	83	10	116
Alabama.....	6	6	—	3	1	2	—	—
Alaska.....	2	2	—	1	1	—	—	—
Arizona.....	7	7	—	6	—	1	—	—
Arkansas.....	13	13	—	8	—	5	—	—
California.....	—	—	—	—	—	—	—	—
Colorado.....	5	5	—	5	—	—	—	—
Connecticut.....	11	9	1	5	3	—	—	2
Delaware.....	2	2	—	2	—	—	—	—
Dist. of Col.....	3	2	—	1	1	—	—	1
Florida.....	5	5	—	3	2	—	—	—
Georgia.....	18	15	—	11	—	4	—	3
Hawaii.....	3	3	—	2	1	—	—	—
Idaho.....	12	12	—	10	—	2	—	—
Illinois.....	19	16	1	11	1	3	—	3
Indiana.....	18	18	1	6	1	9	1	—
Iowa.....	17	16	—	13	—	1	2	1
Kansas.....	8	7	—	2	1	4	—	1
Kentucky.....	6	5	—	5	—	—	—	1
Louisiana.....	19	17	—	17	—	—	—	2
Maine.....	5	5	2	3	—	—	—	—
Maryland.....	2	2	—	2	—	—	—	—
Massachusetts.....	15	11	—	6	4	1	—	4
Michigan.....	10	4	—	3	1	—	—	6
Minnesota.....	10	10	—	8	—	2	—	—
Mississippi.....	23	13	—	10	3	—	—	10
Missouri.....	5	4	—	4	—	—	—	1
Montana.....	2	2	—	2	—	—	—	—
Nebraska.....	2	2	—	—	—	2	—	—
Nevada.....	2	2	—	—	1	1	—	—
New Hampshire.....	1	1	—	1	—	—	—	—
New Jersey.....	4	4	—	4	—	—	—	—
New Mexico.....	9	9	—	8	1	—	—	—
New York.....	127	69	3	35	15	16	—	58
North Carolina.....	33	31	—	28	1	—	2	2
North Dakota.....	13	13	1	4	—	6	2	—
Ohio.....	16	9	—	8	1	—	—	7
Oklahoma.....	22	22	—	15	—	7	—	—
Oregon.....	10	10	—	3	3	3	1	—
Pennsylvania.....	15	15	—	10	1	3	1	—
Puerto Rico.....	1	1	—	1	—	—	—	—
Rhode Island.....	—	—	—	—	—	—	—	—
South Carolina.....	14	12	—	10	—	2	—	2
South Dakota.....	7	7	—	5	2	—	—	—
Tennessee.....	39	36	—	33	3	—	—	3
Texas.....	21	17	1	15	1	—	—	4
Utah.....	—	—	—	—	—	—	—	—
Vermont.....	1	1	—	—	—	1	—	—
Virgin Islands.....	1	1	—	1	—	—	—	—
Virginia.....	16	16	—	10	2	4	—	—
Washington.....	7	7	—	6	1	—	—	—
West Virginia.....	13	9	—	5	—	4	—	4
Wisconsin.....	9	8	—	5	2	—	1	1
Wyoming.....	4	4	—	4	—	—	—	—

<sup>a/</sup> For scope and limitations of data, see table 1.

<sup>b/</sup> Includes 7 director-workers.

Note: This table includes only vacant positions to be filled by employees who devote full time to child welfare.

Table 6.— NUMBER OF ACCESSIONS AND SEPARATIONS OF PUBLIC CHILD WELFARE EMPLOYEES,  
BY STATE AND TYPE OF POSITION, JUNE 1950 a/

State	Accessions				Separations			
	Total	Professional child welfare employees		Clerical employees	Total	Professional child welfare employees		Clerical employees
		Total	Case-workers b/			Total	Case-workers c/	
Total.....	1,730	1,304	1,151	426	1,391	1,014	859	377
Alabama.....	21	21	20	--	23	23	20	--
Alaska.....	1	1	1	--	3	2	1	1
Arizona.....	12	12	11	--	20	19	17	1
Arkansas.....	10	7	7	3	7	6	3	1
California.....	41	32	29	9	49	37	25	12
Colorado.....	10	6	3	4	7	3	3	4
Connecticut....	37	31	30	6	21	20	20	1
Delaware.....	6	6	6	--	4	4	4	--
Dist. of Col....	27	16	14	11	19	9	6	10
Florida.....	25	15	12	10	14	9	8	5
Georgia.....	29	20	19	9	25	22	21	3
Hawaii.....	6	5	5	1	10	5	5	5
Idaho.....	5	4	3	1	4	3	3	1
Illinois.....	114	102	95	12	67	57	51	10
Indiana.....	54	50	43	4	37	32	23	5
Iowa.....	34	24	18	10	28	19	11	9
Kansas.....	16	13	12	3	12	10	8	2
Kentucky.....	45	19	16	26	33	12	9	21
Louisiana.....	49	34	31	15	38	24	23	14
Maine.....	12	10	10	2	15	13	13	2
Maryland.....	4	4	3	--	3	3	3	--
Massachusetts..	25	13	12	12	29	10	8	19
Michigan.....	50	30	22	20	43	21	16	22
Minnesota.....	76	54	51	22	67	56	53	11
Mississippi....	48	31	31	17	34	17	14	17
Missouri.....	26	20	19	6	25	18	18	7
Montana.....	5	5	2	--	6	6	4	--
Nebraska.....	20	15	12	5	17	12	9	5
Nevada.....	4	3	2	1	11	9	7	2
New Hampshire..	3	3	3	--	3	3	3	--
New Jersey.....	2	--	--	2	3	--	--	3
New Mexico.....	14	10	9	4	13	11	10	2
New York.....	257	190	169	67	220	158	126	62
North Carolina..	46	39	36	7	21	17	14	4
North Dakota...	5	5	4	--	6	6	2	--
Ohio.....	117	92	70	25	101	74	58	27
Oklahoma.....	30	18	17	12	31	17	14	14
Oregon.....	36	24	21	12	23	14	11	9
Pennsylvania....	23	18	15	5	16	11	10	5
Puerto Rico....	26	25	18	1	18	18	18	--
Rhode Island...	10	8	7	2	5	3	3	2
South Carolina..	8	8	7	--	14	12	10	2
South Dakota....	16	14	13	2	11	9	9	2
Tennessee.....	54	39	38	15	24	17	15	7
Texas.....	32	17	17	15	51	35	34	16
Utah.....	9	7	7	2	10	8	7	2
Vermont.....	3	3	3	--	8	8	7	--
Virgin Islands..	--	--	--	--	--	--	--	--
Virginia.....	54	43	40	11	47	38	35	9
Washington.....	30	30	28	--	26	25	23	1
West Virginia..	42	35	34	7	29	24	22	5
Wisconsin.....	96	68	53	28	38	23	20	15
Wyoming.....	5	5	3	--	2	2	2	--

a/ Accessions and separations exclude employees who were separated but returned within the reporting period. For scope and limitations of data, see table 1.

b/ Includes 22 director-workers.

c/ Includes 25 director-workers.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 7.— PUBLIC CHILD WELFARE CASEWORKERS, BY STATE AND MONTHLY SALARY RATE, JUNE 1950 a/

State	Total caseworkers b/	Caseworkers receiving--						
		Less than \$175	\$175- 199	\$200- 224	\$225- 249	\$250- 274	\$275- 299	\$300 or more
Total.....	3,154	332	429	778	556	415	344	300
Alabama.....	40	3	17	15	2	1	2	--
Alaska.....	4	--	--	--	--	--	--	4
Arizona.....	13	--	--	--	2	8	3	--
Arkansas.....	22	6	6	10	--	--	--	--
California.....	65	--	1	4	13	6	18	23
Colorado.....	20	--	3	8	6	3	--	--
Connecticut.....	105	--	39	22	18	25	1	--
Delaware.....	14	--	6	2	3	1	2	--
Dist. of Col.....	50	--	--	--	--	2	3	45
Florida.....	29	--	2	10	17	--	--	--
Georgia.....	35	11	14	7	2	1	--	--
Hawaii.....	21	--	--	--	--	14	1	6
Idaho.....	6	--	3	--	--	--	3	--
Illinois.....	189	2	22	78	22	43	22	--
Indiana.....	153	17	49	36	24	31	1	--
Iowa.....	33	--	13	6	10	4	--	--
Kansas.....	11	--	7	3	--	1	--	--
Kentucky.....	51	9	6	15	17	3	--	1
Louisiana.....	48	--	5	6	21	11	2	3
Maine.....	37	--	--	20	7	10	--	--
Maryland.....	15	1	1	13	--	--	--	--
Massachusetts.....	147	--	1	8	4	8	45	81
Michigan.....	71	--	--	3	11	12	13	32
Minnesota.....	156	--	--	9	48	31	32	36
Mississippi.....	47	27	5	7	3	5	--	--
Missouri.....	57	6	15	4	25	7	--	--
Montana.....	9	--	--	2	7	--	--	--
Nebraska.....	23	5	5	11	1	1	--	--
Nevada.....	4	--	--	--	2	--	--	2
New Hampshire.....	11	4	4	3	--	--	--	--
New Jersey.....	7	1	1	1	3	1	--	--
New Mexico.....	16	--	1	5	2	6	2	--
New York.....	556	30	75	186	123	62	76	4
North Carolina.....	67	4	4	52	7	--	--	--
North Dakota.....	7	--	--	1	2	3	--	1
Ohio.....	227	44	36	51	31	41	10	14
Oklahoma.....	33	8	1	15	5	4	--	--
Oregon.....	37	--	--	7	17	12	1	--
Pennsylvania.....	47	2	13	12	7	5	5	3
Puerto Rico.....	61	61	--	--	--	--	--	--
Rhode Island.....	31	7	6	9	5	4	--	--
South Carolina.....	29	5	13	11	--	--	--	--
South Dakota.....	18	--	4	4	4	5	--	1
Tennessee.....	56	17	--	18	20	1	--	--
Texas.....	46	--	--	12	11	--	9	14
Utah.....	17	--	2	6	7	--	2	--
Vermont.....	16	3	--	11	2	--	--	--
Virgin Islands.....	4	4	--	--	--	--	--	--
Virginia.....	78	11	15	32	17	3	--	--
Washington.....	91	--	--	7	6	27	51	--
West Virginia.....	96	43	28	23	2	--	--	--
Wisconsin.....	119	1	6	12	19	11	40	30
Wyoming.....	4	--	--	1	1	2	--	--

a/ Salary refers to the monthly rate in effect in June 1950. For scope and limitations of data see table 1.

b/ Includes 107 director-workers.

Note: This table includes only caseworkers who devoted full time to the child welfare services program.

Table 8.-- PUBLIC CHILD WELFARE CASEWORKERS, BY STATE AND TYPE OF AREA SERVED, JUNE 1950 a/

State	Total all areas	Full-time workers serving--				
		Single-county areas			Areas of more than one county	State and other
		Total	With cities of 100,000 or more population b/	With no cities of 100,000 or more population b/		
Total.....	c/ 3,110	2,499	1,299	1,200	373	91
Alabama.....	40	35	11	24	--	5
Alaska.....	4	4	--	4	--	--
Arizona.....	13	12	5	7	--	1
Arkansas.....	22	19	13	6	3	--
California.....	65	36	20	16	29	--
Colorado.....	20	20	5	15	--	--
Connecticut.....	105	64	48	16	41	--
Delaware.....	14	5	5	--	9	--
Dist. of Col.....	50	50	50	--	--	--
Florida.....	29	29	18	11	--	--
Georgia.....	35	31	15	16	4	--
Hawaii.....	21	21	17	4	--	--
Idaho.....	6	2	--	2	4	--
Illinois.....	189	113	93	20	76	--
Indiana.....	158	153	80	78	--	--
Iowa.....	33	29	6	23	2	2
Kansas.....	11	7	2	5	1	3
Kentucky.....	50	28	16	12	18	4
Louisiana.....	48	31	23	8	17	--
Maine.....	37	31	--	31	6	--
Maryland.....	15	15	--	15	--	--
Massachusetts.....	c/ 147	--	--	--	--	--
Michigan.....	71	33	18	15	36	2
Minnesota.....	156	142	113	29	--	14
Mississippi.....	47	26	--	26	1	20
Missouri.....	57	56	33	23	1	--
Montana.....	9	9	--	9	--	--
Nebraska.....	23	16	5	11	7	--
Nevada.....	4	--	--	--	4	--
New Hampshire.....	11	11	--	11	--	--
New Jersey.....	2	2	--	2	--	--
New Mexico.....	16	13	--	13	3	--
New York.....	556	555	360	195	--	1
North Carolina.....	67	67	7	60	--	--
North Dakota.....	7	5	--	5	--	2
Ohio.....	190	188	139	49	--	2
Oklahoma.....	33	16	16	--	17	--
Oregon.....	37	37	19	18	--	--
Pennsylvania.....	46	44	--	44	--	2
Puerto Rico.....	61	44	18	26	12	5
Rhode Island.....	31	19	14	5	4	8
South Carolina.....	29	29	--	29	--	--
South Dakota.....	18	2	--	2	14	2
Tennessee.....	56	55	17	33	--	1
Texas.....	46	46	11	35	--	--
Utah.....	17	15	5	10	1	1
Vermont.....	16	7	--	7	9	--
Virgin Islands.....	4	4	--	4	--	--
Virginia.....	78	65	24	41	--	13
Washington.....	91	79	44	35	12	--
West Virginia.....	96	86	--	86	10	--
Wisconsin.....	119	84	29	55	32	3
Wyoming.....	4	4	--	4	--	--

a/ For scope and limitations of data, see table 1.

b/ Based on preliminary 1950 population data from the Bureau of the Census.

c/ The breakdown by area served is not applicable for the 147 workers in Massachusetts (included in totals). The county unit has no administrative or functional significance for the child welfare services program in this State.



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CHILDREN'S BUREAU

STATISTICAL SERIES

NUMBER **8**

~~Kirstein Business Branch~~

APR 14 1952

**Juvenile  
Court  
Statistics  
1946-1949**



## JUVENILE COURT STATISTICS, 1946-1949 1/

In 1949, the number of juvenile court delinquency cases reported to the Children's Bureau showed an increase over 1948, reversing a downward trend noted each year since the end of World War II. On the other hand, the number of dependency and neglect cases handled by the same courts during 1949 was less than in 1948.

The number of courts for which data are transmitted to the Children's Bureau varies each year. In 1949, reports were received for 413 courts in 22 States, covering about 20 percent of the child population of the United States. These 413 courts provide the data for the detailed analysis of age and sex of the children involved, place of care pending disposition of their cases, and type of disposition. Of the 413 courts reporting in 1949, 218 reported for each of the years since 1946. 2/ This comparable group of courts provides the data for the trend analysis for the years 1946-1949.

### Juvenile Delinquency Cases

Juvenile delinquency may be defined as violation of the law by persons of juvenile court age, or conduct on the part of such persons so seriously antisocial as to interfere with the rights of others or menace the welfare of the delinquent himself or of the community. This broad definition of delinquency includes conduct other than violation of laws. Whether a child comes to the attention of the court is determined to a large extent by parental or community attitudes towards a child's behavior. Consequently, the acts which result in bringing a child before the court may be either trivial or serious misbehavior. Not included in the statistics of juvenile delinquency cases are the many children who presented similar conduct problems but who were either not apprehended or were dealt with by the police, social agencies, schools, or youth-serving agencies without referral to court.

### Trends in delinquency cases, 1946-1949

From a peak at the end of World War II (1945), juvenile court delinquency cases dropped each year from 1946 through 1948 (table 1 and chart). The decrease in 1948 was much less marked

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1/ Report prepared by Mary E. Wheeler and I. Richard Perlman, Program Research Branch, Division of Research.

2/ Data for all the courts reporting during the years 1946, 1947 and 1948 are available in the "Preliminary Statement, Juvenile Court Statistics" issued by the Children's Bureau for each of those years.

than in the preceding 2 years. This trend was indicated by the 218 courts that reported each year since 1946. In this group of courts, 30 served large urban areas with 100,000 or more population and 188 served smaller areas with population of less than 100,000. The overall decrease in delinquency cases of 13 percent between 1946 and 1948 was accounted for mostly by the decrease in cases handled by the large courts, especially official cases. 3/ Boys' cases decreased more than girls' cases for all courts combined.

The downward trend in delinquency cases from 1946 to 1948 seems to be related to the improvement of conditions associated with war.

In 1949, for the first time since the end of the war, juvenile court delinquency cases reversed their downward trend and increased by 4 percent over the previous year. As indicated below, the increase was greater for unofficial cases than for official cases and greater in the smaller courts than in the larger courts:

<u>Juvenile delinquency cases</u>			
<u>Percent change, 1948 to 1949</u>			
	<u>Total</u>	<u>Boys' cases</u>	<u>Girls' cases</u>
218 courts.....	+ 4	+ 4	+ 3
Official cases.....	+ 1	+ 1	<u>a/</u>
Unofficial cases.....	+ 6	+ 6	+ 5
30 large courts serving areas with population of 100,000 or more....	+ 2	+ 2	+ 1
Official cases.....	- 2	- 2	- 1
Unofficial cases.....	+ 4	+ 5	+ 2
188 small courts serving areas with population of less than 100,000..	+ 18	+ 17	+ 20
Official cases.....	+ 17	+ 18	+ 10
Unofficial cases.....	+ 18	+ 17	+ 27

a/ Less than 1%

3/ Official cases are those placed on the official court's calendar for adjudication by the judge or referee through the filing of a petition, affidavit or other legal paper. Unofficial cases are those where no petition or legal paper is filed and where the case is adjusted by the judge, referee, probation officer or other officer of the court without formal hearing.

Both large and small courts seem to be making increased use of unofficial procedures in handling delinquency cases. This is indicated by the increase in the proportion of unofficial cases from 53 percent in 1946 to 57 percent in 1949 in the 30 large courts, and from 51 percent to 55 percent in the 188 small courts.

The overall trend noted in juvenile court delinquency cases was observed also in an independent series of data based on police arrests of children under 18 years of age whose fingerprint records were transmitted to the Federal Bureau of Investigation (see chart). Although neither of these series represents a completely accurate measurement of juvenile delinquency, their remarkable similarity does indicate that they are affected by common determining factors. They are useful, therefore, in reflecting directional changes even if they do not indicate the magnitude of the problem. The reversal in 1949 of the downward trend in both series, even before the beginning of the Korean situation, gives us cause for concern.

Throughout the trend period, when there were both increases and decreases in delinquency cases and police arrests of children, the number of children in the general population between the ages of 7-17 (the predominant age group of juvenile delinquents), remained relatively constant (see chart). The large increases in births in recent years have not yet affected the numbers of children in the 7-17 year old group.

#### Number of delinquency cases, 1949

A total of 70,616 juvenile delinquency cases disposed of during 1949 were reported by the 413 courts located in 22 States (table 2). Forty courts were large courts--serving areas with populations of 100,000 or more--and 373 were small courts--serving areas with less than 100,000 population. The large courts disposed of almost three-fourths of the total delinquency cases. Therefore, any analysis of the data is heavily influenced by these large courts.

Since a child may appear before the court two or more times during the year, the number of cases reported for the year is larger than the number of different children involved. Most of the 413 courts reported these data, and it was found that the number of delinquency cases was 16 percent higher than the number of children involved.

From these data, it is estimated that almost 300,000 children or about 12 in every 1,000 children between the ages of 7-17 came to the attention of juvenile courts in 1949 because of delinquency.

Over half (58 percent) of the delinquency cases reported by the 413 courts were handled unofficially. These unofficial cases were disposed of after conference at the point of intake or after more intensive social investigation and study.

Wide differences in the methods of handling cases were found among courts in various States and even among courts in the same State. For example, in Ohio, all reporting courts combined disposed of 25 percent of their delinquency cases officially; in Missouri, 50 percent; and in Pennsylvania, 78 percent. Within Ohio, one court (Hamilton County) disposed of 4 percent of its delinquency cases officially while another court (Trumbull County) disposed of 90 percent of its delinquency cases officially. There seems to be no consistent pattern regarding the methods of handling cases, either by region or by size of court. Rather the procedure for handling cases rests heavily on individual court practices, the philosophy of the judge and the size of staff.

#### Age and sex of children in delinquency cases, 1949

The median age of the children involved in delinquency cases in the 413 courts was about 15½ years. About the same median age was found for girls as for boys and for unofficial as well as official cases. Almost three-fourths of the children involved in delinquency cases were 14 years of age or over (table 3). One of the important factors to be taken into consideration in interpreting the age distribution of the cases is the age under which the juvenile court has jurisdiction. The age jurisdiction is established by State law and in most instances is uniform throughout a State, though it varies from State to State as shown in table 2.

Boys' cases outnumbered girls' cases in the ratio of 4 to 1. This ratio varied in courts in different States. It was lowest in Oklahoma where only twice as many boys' cases as girls' cases were disposed of in 1949 and highest in Puerto Rico where boys' cases outnumbered girls' cases 19 to 1. In general, one reason for the greater number of boys' cases may be our cultural patterns permitting more freedom to boys so that they are more likely to be picked up by police for infractions of the law. Boys are more outwardly aggressive than girls and this aggressiveness sometimes results in overt delinquent acts. Also, boys tend more to associate in gangs and delinquent behavior often stems from misdirected gang activities.

#### Place of detention care of children in delinquency cases, 1949

Detention has been defined as "temporary care of children who require secure custody prior to court action or return to another jurisdiction. This means children who have committed delinquent acts or present a dangerous likelihood of running away or committing further offenses if allowed to remain in their own homes pending court hearing." <sup>4/</sup> Since the behavior of many

<sup>4/</sup> - - - - - Norman, Sherwood, "New Goals for Detention," Federal Probation, Vol. 13, December 1949, p. 30.

delinquent children is not serious enough to require removal from their own homes, every effort should be made to avoid the use of detention with its possible damaging effects on impressionable youngsters. Also, detention should not be used as a disciplinary measure or for extended care of children after they have been committed to another institution for treatment.

More than two-thirds of the delinquency cases reported by the 413 courts were given no detention care overnight or longer (table 4). Detention was ordered in 21,697 of the 64,772 delinquency cases for which information on detention care was reported.

There was a noticeable difference in the detention of boys as compared with girls, especially in official court cases. Of the boys' official cases, 63 percent were permitted to remain with their parents or usual place of care pending the decision of the court. This was permitted in only 43 percent of the girls' cases brought before the judge. This difference is related to the reasons for which girls are brought to court, such as sexual promiscuity with its attendant dangers of venereal disease, pregnancy, etc. Such misconduct is considered serious enough to require detention in order to protect both the community and the girl.

The most frequently used place of detention care was the detention home. Of the children detained overnight or longer, 7 out of every 10 were cared for in a detention home.

One of the fundamental objectives of juvenile court legislation is to keep children out of jails where they are frequently detained along with adult criminals. In line with this objective many States now have laws to prohibit jail detention of children and youth. However, because of the lack of suitable detention facilities, particularly in some small towns and rural areas, detention in jails or police stations is still a frequent practice. Jail detention was used in 25 percent of the delinquency cases of children reported as being detained overnight or longer.

The use of the boarding home is another method for detaining children when they are unable to remain in their own homes. In this type of care, the child is placed in a private foster family home during the period of detention. Boarding home care, however, is used negligibly for delinquency cases. Less than one percent of the children detained were cared for in boarding homes pending disposition of the court.

#### Disposition of delinquency cases, 1949

It is the duty of the court to determine the disposition or treatment of cases of alleged delinquency referred to it. In a juvenile court, the disposition is focused primarily on helping and

guiding the child rather than on punishing him. The methods of disposition of official cases differed markedly from those of unofficial cases (table 5). Unofficial cases were more frequently "dismissed, adjusted or held open without further action" than official cases. This lends belief to the assumption that in many courts minor offenses are usually handled by unofficial action. Another factor that accounts for the difference is that certain types of disposition, for example, commitment to institutions require official court action. Thus, commitment of delinquent children to training schools occurs under "official" dispositions.

The disposition of boys' and girls' cases differed considerably also. Cases "dismissed, adjusted or held open without further action" were proportionately higher for boys than girls in both official and unofficial handling. Commitments or referrals to institutions or agencies were more frequent in girls' cases.

Differences in dispositions between boys' and girls' delinquency cases, as in detention care, are attributable in part to the different reasons for which boys and girls are brought to court.

Boys are most frequently referred to court for such reasons as stealing, destroying property, and other types of malicious mischief. Such offenses can frequently be understood or excused as the expression of mischievousness or an adventuresome spirit where continuing court care is not considered necessary. Their cases are often dismissed.

Girls, on the other hand, usually come before the court because of sexual misconduct or offenses of a related nature. As indicated previously, this type of misconduct is viewed more seriously than that of boys. Consequently, the probation and commitment rate for girls is much higher than for boys.

#### Dependency and Neglect Cases

Most juvenile courts by statute have jurisdiction over actions involving dependent and neglected children as well as those involving delinquent children. Such jurisdiction is based on the principle that a child is a ward of the State, subject to its discipline and entitled to its protection.

Unlike the delinquent child who is brought to the attention of the court because of his anti-social behavior, the dependent or neglected child is usually referred because of some form of neglect or inadequate care on the part of his parents or guardian (i.e., lack of adequate care or support resulting from the death, absence, or physical or mental incapacity of the parents, abandonment or desertion, abuse or cruel treatment, improper or inadequate conditions in the home). However, in many cases brought to the

juvenile court, dependency or neglect and unsatisfactory behavior of the child are closely allied. In dealing with these cases, the court tries to work out a social plan to encourage the healthy development of the child.

Trends in dependency and neglect cases, 1946-1949

Of the 413 courts reporting on dependency and neglect cases in 1949, 218 courts reported throughout the period 1946-1949. In each of these years, except 1947, the number of these cases disposed of was less than in the preceding year (table 6). There was an overall decrease of 8 percent in the dependency and neglect cases between 1946 and 1949. Since official cases in large urban courts account for about half of all the dependency and neglect cases reported, the overall decrease was heavily affected by the decrease of 14 percent noted below in the official cases in the large urban courts:

	<u>Dependency and neglect cases</u>		
	<u>Percent change, 1946 to 1949</u>		
	<u>Total</u>	<u>Official cases</u>	<u>Unofficial cases</u>
218 courts.....	- 8	-12	- 2
30 courts serving areas with population of 100,000 or more...	- 8	-14	<u>a/</u>
188 courts serving areas with population of less than 100,000.	- 4	+ 3	- 23

a/ Less than 1%

General economic and social conditions affect the number of dependency and neglect cases coming to the attention of courts. The decrease since 1946 may be associated with the high level of employment and general prosperity during the post-war years. The decrease may also be related to the elimination or improvement of many war-associated conditions. Family living has become more stabilized with fathers returning from service; the need for mothers to go to work has become somewhat lessened. Also the trained staff of child and family agencies drained off by the war have returned to strengthen and improve casework services to families whose children are in danger of becoming neglected.

## Number of dependency and neglect cases, 1949

Of the total children's cases handled by the 413 courts reporting in 1949, almost 24,000, or about 24 percent, were dependency and neglect cases. Of these, about three-fifths were handled by official action and the remainder unofficially (table 2). The large proportion of dependency and neglect cases handled officially results from the fact that frequently these cases require court action involving a child's legal status.

## Ages of children in dependency and neglect cases, 1949

As might be expected from the nature of dependency and neglect cases, children dealt with in such cases in 1949 were younger (median age of  $6\frac{1}{2}$  years) than those involved in delinquency cases (median age of  $15\frac{1}{2}$  years). Seventy percent of the children in dependency and neglect cases were under 10 years of age at the time of their referral (table 7).

## Place of shelter care in dependency and neglect cases, 1949

In cases involving dependency and neglect, shelter care is provided because, pending court hearing, the child is found in need of protection and care which cannot be given him by his parents or guardian. In such cases, in contrast to delinquency cases, the child is not in danger of harming himself or others. He therefore does not need secure detention. Rather he needs a substitute for parental care--perhaps a foster-family home or care in a small separate institution.

However, the actual type of care which a dependent and neglected child receives often is not related to his needs but rather is determined by the type of facilities available. Consequently, many dependent and neglected children, young in age, are indiscriminately thrown together in detention homes with older delinquents.

Through the work of the National Probation and Parole Association and the Children's Bureau there has been a growing awareness of the need for separate facilities for the temporary care of dependent and neglected children. The need is more acute in small communities and rural areas than in larger cities which frequently have some resources for shelter care.

No shelter care overnight or longer was given to over three-fourths of the children involved in dependency and neglect cases in 1949 (table 8). When shelter care was used, courts for the most part placed children in boarding homes, in the homes of relatives or friends, or in institutions other than detention homes. However, a significant percentage (33 percent) of those for whom shelter care was provided were placed in detention homes, often

with delinquent children. Only a negligible number of dependent and neglected children (49) were cared for overnight in jails or police stations.

### Disposition of dependency and neglect cases, 1949

Between the time of the filing of a petition or complaint alleging a child's dependency or neglected status and the disposition of the case, much work may be done by the court's social work and probation staff in helping parents to correct home deficiencies.

Of the 22,265 dependency and neglect cases for which disposition was reported by the 413 courts, 8,602 or almost two-fifths were dismissed or held open without further court action (table 9). Almost an equal number (8,420) were committed or referred to other agencies and institutions. The largest proportion of the latter were committed or referred to the custody or guardianship of the public welfare agency, usually for supervision in their own homes or for placement in foster boarding homes or institutions.

Through supervision by a probation officer many parents can be helped to meet community standards in relation to child care and to give their children a better chance for a normal life. This disposition of supervision by a probation officer was used in 12 percent of the dependency and neglect cases for which disposition was reported.

### Special Proceedings

In addition to delinquency and dependency or neglect, children are referred to juvenile courts for other reasons which are generally termed "special proceedings." Special proceedings include such cases as adoption, commitment of mentally defective children, material witnesses, application for consent to marry or to enlist in the armed forces, determination of custody or guardianship of a child and permission to hospitals for the performance of an operation on children.

Of all the children's cases reported by the 413 courts in 1949, 6,159 or 6 percent were special proceedings (table 2).

In contrast to the decrease in dependency and neglect cases, special proceedings cases increased by 13 percent from 1946 to 1949. Since adoption proceedings account for a large part of special proceedings cases, the larger number of special proceedings cases probably reflects the increases taking place in the last several years in the number of children being adopted.

## Limitations of Juvenile Court Statistics

Reports on juvenile court statistics are designed to show the volume of children's cases disposed of by the juvenile court and the importance of the court in a community's program for services to children. Courts are included in these tabulations primarily because they voluntarily supplied all necessary data in accordance with the criteria established by the 1946 revision of the reporting plan; 5/ they, therefore, should not be interpreted to represent all courts in the country.

The number of children's cases handled by juvenile courts is affected by several factors. The age group of children and the types of cases over which courts have jurisdiction are established by State law and often are different for courts in different States. This affects the number of cases reported, and consequently the comparability of the reports for the various courts.

The number of children's cases reported by different courts is greatly influenced also by variations in the administrative practices of the courts and by the organization for child welfare services in the different communities. Some courts, for example, handle a substantial number of cases of neglect as adult cases rather than as children's cases (that is, an affidavit is filed against or in the name of the parent neglecting the child); these are not reflected in the reports on children's cases disposed of. In some communities the juvenile court is the only agency available to provide services to children; in others, there are well established programs of services for children and the juvenile court is only one of the many agencies dealing with children, and is frequently used only when its authority as a judicial agency is needed. Many communities have established "screening agencies" (such as a juvenile division in the police department) that adjust many cases or refer them to other community agencies rather than to juvenile courts.

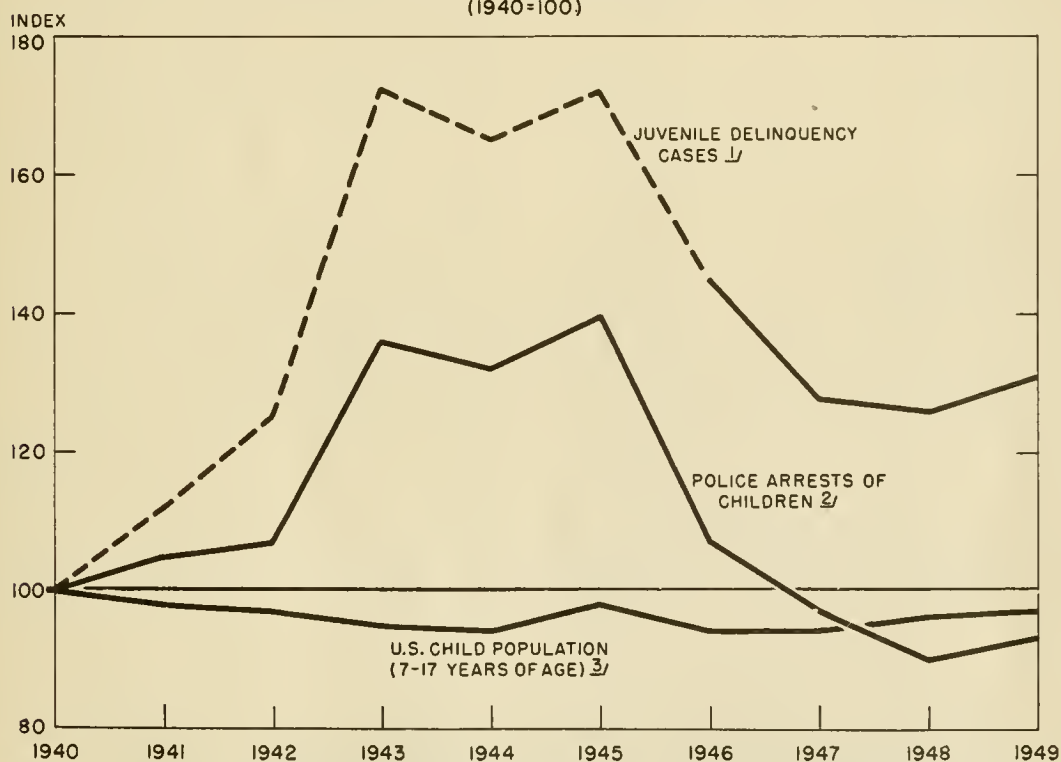
Because of their limitations, juvenile court statistics alone do not provide a reliable index of the extent of delinquency problems or dependency and neglect situations. In regard to the extent of such problems, they may be particularly misleading when used to make comparisons between one community and another.

5/ - - - - -  
The revision in 1946 discontinued the direct collection of statistical reports from individual courts. The data are now obtained in summary form from State agencies concerned with juvenile court or probation work. Reports from States need not be State-wide in coverage. A State may be included if one or more courts within the State report. The courts reporting, however, must include data on all types of cases--dependency, neglect and special proceedings as well as delinquency cases--disposed of both officially and unofficially.

Table 1.—Juvenile delinquency cases, 1946-1949: Number of cases disposed of by 218 courts, according to the manner of handling.

Year	Juvenile delinquency cases								
	Total, 218 courts			30 large courts			188 small courts		
	Total	Official	Unofficial	Total	Official	Unofficial	Total	Official	Unofficial
1946.....	59,944	28,457	31,487	52,043	24,554	27,489	7,901	3,903	3,998
1947.....	53,041	24,126	28,915	45,179	20,622	24,557	7,862	3,504	4,358
1948.....	51,994	23,051	28,943	44,415	19,652	24,763	7,579	3,399	4,180
1949.....	54,028	23,313	30,715	45,106	19,342	25,764	8,922	3,971	4,951

JUVENILE DELINQUENCY COURT CASES, POLICE ARRESTS OF CHILDREN,  
AND U.S. CHILD POPULATION, 1940-49  
(1940=100)



1/ Data for 1940-45 estimated by Children's Bureau; data for 1946-49 based on official and unofficial cases disposed of by 218 courts.

2/ Based on fingerprint records for children under 18 years of age reported in Uniform Crime Reports (annual bulletins), Federal Bureau of Investigation.

3/ Current Population Reports, Bureau of the Census, Series P-25, No. 41.

Table 2.— Children's cases, 1949: Number of delinquency, dependency and neglect, and special proceedings cases disposed of by 413 courts.

Areas served by court a/	Age under which court has original jurisdiction	Total all cases	Delinquency cases			Dependency and neglect cases			Special proceedings cases		
			Total	Official	Un-official	Total	Official	Un-official	Total	Official	Un-official
Total cases.....	-	100,485	70,616	29,484	41,132	23,710	13,729	9,981	6,159	5,127	1,032
ARKANSAS:											
Pulaski Co. (Little Rock).....	b/ 21	1,397	596	131	465	787	58	729	14	13	1
12 small courts.....	b/ 21	296	247	211	36	29	29	-	20	17	3
CONNECTICUT:											
First District (Bridgeport).....	16	1,690	1,395	380	1,015	295	295	-	-	-	-
Second District (New Haven).....	16	1,768	1,383	439	944	385	385	-	-	-	-
Third District (Hartford).....	16	1,461	1,116	342	774	345	345	-	-	-	-
INDIANA:											
Allen Co. (Fort Wayne).....	18	477	477	179	298	-	-	-	-	-	-
Lake Co. (Gary).....	18	1,050	965	253	712	46	14	32	39	7	32
Marion Co. (Indianapolis).....	18	1,589	839	459	380	437	412	25	313	286	27
St. Joseph Co. (South Bend).....	18	1,044	877	63	814	53	47	6	114	111	3
Vanderburgh Co. (Evansville).....	18	520	520	58	462	-	-	-	-	-	-
45 small courts.....	18	3,017	2,604	969	1,635	288	134	154	125	56	69
IOWA:											
Polk Co. (Des Moines).....	18	993	726	134	592	267	156	111	-	-	-
Woodbury Co. (Sioux City).....	18	960	538	150	388	328	172	156	94	69	25
LOUISIANA:											
1 small court.....	17	362	238	43	195	84	43	41	40	2	38
MAINE:											
1 small court.....	17	378	336	160	176	35	31	4	7	4	3
MISSISSIPPI:											
Hinds Co. (Jackson).....	18	87	86	86	-	1	1	-	-	-	-
67 small courts.....	18	756	575	292	283	169	60	109	12	3	9
MISSOURI:											
Jackson Co. (Kansas City).....	17	3,159	1,744	886	858	714	304	410	701	700	1
St. Louis (City).....	17	2,957	1,402	472	930	853	325	528	702	686	16
St. Louis Co. (University City).....	17	650	392	200	192	172	89	83	86	86	-
112 small courts.....	17	2,470	1,367	884	483	612	537	75	491	483	8
MONTANA:											
1 small court.....	b/ 18	794	791	49	742	-	-	-	3	-	3
NORTH DAKOTA:											
First District (Fargo).....	18	527	316	152	164	199	182	17	12	12	-
OHIO:											
Butler Co. (Hamilton City).....	18	1,218	925	260	665	118	66	52	175	51	124
Cuyahoga Co. (Cleveland).....	18	7,231	3,549	1,313	2,236	3,421	1,676	1,745	261	260	1
Franklin Co. (Columbus).....	18	1,098	672	244	428	373	269	104	53	31	22
Hamilton Co. (Cincinnati).....	18	3,818	3,271	130	3,141	362	362	-	185	53	132
Lorain Co. (Elyria).....	18	406	404	182	222	2	2	-	-	-	-
Lucas Co. (Toledo).....	18	2,569	1,806	205	1,601	408	323	85	355	224	131
Mahoning Co. (Youngstown).....	18	1,247	1,033	156	877	165	138	27	49	48	1
Montgomery Co. (Dayton).....	18	1,631	1,331	289	1,042	201	167	34	99	99	-
Summit Co. (Akron).....	18	1,400	1,200	75	1,125	163	158	5	37	36	1
Trumbull Co. (Warren).....	18	330	219	197	22	111	108	3	-	-	-
44 small courts.....	18	6,761	4,747	1,704	3,043	1,495	1,291	204	519	400	119
OKLAHOMA:											
Tulsa Co. (Tulsa).....	18	1,550	1,051	194	857	489	123	366	10	5	5
4 small courts.....	c/ 16,18	428	120	72	48	263	184	79	45	43	2
OREGON:											
Multnomah Co. (Portland).....	18	2,807	1,587	367	1,220	1,184	459	725	36	36	-
10 small courts.....	18	3,730	2,689	675	2,014	899	243	656	142	36	106
PENNSYLVANIA:											
Allegheny Co. (Pittsburgh).....	18	6,420	3,610	2,201	1,409	2,731	945	1,786	79	79	-
Berks Co. (Reading).....	18	651	546	80	466	105	38	67	-	-	-
Montgomery Co. (Norristown).....	18	646	387	79	308	229	20	209	30	30	-
Philadelphia (City and Co.).....	18	9,878	7,121	6,712	409	2,603	2,028	575	154	107	47
PUERTO RICO:											
Ponce District (Ponce).....	16	93	92	-	92	1	-	1	-	-	-
San Juan District (San Juan).....	16	291	280	87	193	11	6	5	-	-	-
1 small court.....	16	25	24	5	19	1	1	-	-	-	-
RHODE ISLAND:											
State (Providence).....	18	1,631	1,036	869	167	187	187	-	408	408	-
SOUTH CAROLINA:											
Greenville Co. (Greenville).....	16	570	355	183	172	209	56	153	6	6	-
Spartanburg Co. (Spartanburg).....	16	393	145	99	46	44	34	10	204	118	86
SOUTH DAKOTA:											
2 small courts.....	18	544	457	81	376	84	65	19	3	2	1
UTAH:											
First District (Ogden).....	18	1,454	1,313	876	437	141	99	42	-	-	-
Second District (Salt Lake City).....	18	2,113	1,958	1,571	387	155	114	41	-	-	-
3 small courts.....	18	2,193	2,103	1,447	656	90	51	39	-	-	-
VERMONT:											
16 small courts.....	16	276	100	95	5	176	172	4	-	-	-
WEST VIRGINIA:											
54 small courts.....	18	2,674	1,857	1,332	525	595	429	166	222	212	10
WISCONSIN:											
Milwaukee Co. (Milwaukee).....	18	6,007	5,098	712	4,386	595	296	299	314	308	6

a/ Courts serving areas with population of 100,000 or more are listed separately, showing the chief city located in each area. Courts serving areas with less than 100,000 population are combined for each State and are presented as "small courts."

b/ Age shown is the one under which court has jurisdiction for delinquent children. Arkansas courts have jurisdiction for dependent and neglected boys under 17 years of age, and for dependent and neglected girls under 18. Montana courts have jurisdiction for dependent and neglected children under 17 years of age.

c/ The age under which court has original jurisdiction is different for boys and for girls. The age for boys appears first.

Table 3.--Juvenile delinquency cases, 1949: Ages of boys and girls when referred to court, in cases disposed of by 413 courts.

Age of child when referred to court	Juvenile delinquency cases									
	Number					Percent				
	Total	Official		Unofficial		Total	Official		Unofficial	
		Boys	Girls	Boys	Girls		Boys	Girls	Boys	Girls
Total cases.....	70,616	24,068	5,416	32,986	8,146	--	--	--	--	--
Age reported.....	64,565	22,774	5,111	29,401	7,279	100	100	100	100	100
Under 10 years.....	2,644	790	64	1,575	215	4	3	1	5	3
10 years, under 12.....	4,478	1,623	146	2,418	291	7	7	3	8	4
12 years, under 14.....	9,723	3,320	782	4,566	1,055	15	15	15	16	14
14 years, under 16.....	21,935	7,569	2,273	9,194	2,899	34	33	45	31	40
16 years and over.....	25,785	9,472	1,846	11,648	2,819	40	42	36	40	39
Age not reported.....	6,051	1,294	305	3,585	867	--	--	--	--	--

Table 4.--Juvenile delinquency cases, 1949: Places of detention care of boys and girls, in cases disposed of by 413 courts.

Place of detention care	Juvenile delinquency cases									
	Number					Percent				
	Total	Official		Unofficial		Total	Official		Unofficial	
		Boys	Girls	Boys	Girls		Boys	Girls	Boys	Girls
Total cases.....	70,616	24,068	5,416	32,986	8,146	--	--	--	--	--
Detention care reported.....	64,772	22,959	5,127	29,422	7,264	100	100	100	100	100
No detention care overnight.....	43,075	14,519	2,189	21,379	4,988	67	63	43	73	69
Detention care overnight or longer <sup>a/</sup> .....	21,697	8,440	2,938	8,043	2,276	33	37	57	27	31
Jail or police station.....	5,342	3,029	371	1,659	283	8	14	7	6	4
Detention home.....	14,946	4,865	2,302	5,914	1,865	23	21	45	20	26
Boarding home.....	184	43	59	50	32	b/	b/	1	b/	b/
Other place.....	1,225	503	206	420	96	2	2	4	1	1
Detention care not reported.....	5,844	1,109	289	3,564	882	--	--	--	--	--

<sup>a/</sup> Where a child was detained overnight in more than one place, only one place is reported. The selection is made in accordance with the order in which the places are listed.

<sup>b/</sup> Less than 0.5 percent.

Table 5.--Juvenile delinquency cases, 1949: Disposition of boys' and girls' cases, disposed of by 413 courts.

Disposition of case	Juvenile delinquency cases									
	Number					Percent				
	Total	Official		Unofficial		Total	Official		Unofficial	
		Boys	Girls	Boys	Girls		Boys	Girls	Boys	Girls
Total cases.....	70,616	24,068	5,416	32,986	8,146	--	--	--	--	--
Disposition reported.....	68,976	24,019	5,381	31,881	7,695	100	100	100	100	100
Case dismissed with or without warning or adjustment.....	29,008	5,322	689	18,995	4,002	42	22	13	60	52
Case held open without further action.....	4,073	823	184	2,559	507	6	4	3	8	7
Child supervised by probation officer.....	18,463	8,931	1,926	6,001	1,605	27	37	36	19	21
Child committed or referred to:										
Public institution for delinquent children.....	4,194	3,037	892	158	57	6	13	17	a/	1
Other public institution.....	985	498	233	165	89	1	2	4	1	1
Other court.....	1,047	423	73	415	136	2	2	2	1	2
Public department.....	1,067	317	184	407	159	2	1	3	1	2
Private agency or institution.....	1,724	495	593	373	263	2	2	11	1	3
Other disposition of case.	8,415	4,123	607	2,808	877	12	17	11	9	11
Disposition not reported.....	1,640	49	35	1,105	451	--	--	--	--	--

a/ Less than 0.5 percent.

Table 6.--Dependency and neglect cases, 1946-1949: Number of cases disposed of by 218 courts, according to the manner of handling.

Year	Dependency and neglect cases								
	Total, 218 courts			30 large courts			188 small courts		
	Total	Official	Unofficial	Total	Official	Unofficial	Total	Official	Unofficial
1946.....	20,950	12,442	8,508	18,820	10,943	7,877	2,130	1,499	631
1947.....	21,352	12,569	8,783	19,257	10,986	8,271	2,095	1,583	512
1948.....	20,743	12,051	8,692	18,654	10,476	8,178	2,089	1,575	514
1949.....	19,303	10,925	8,378	17,268	9,378	7,890	2,035	1,547	488

Table 7.--Dependency and neglect cases, 1949: Ages of children when referred to court, in cases disposed of by 413 courts.

Age of child when referred to court	Dependency and neglect cases					
	Number			Percent		
	Total	Official	Unofficial	Total	Official	Unofficial
Total cases.....	23,710	13,729	9,981	--	--	--
Age reported.....	20,709	12,575	8,134	100	100	100
Under 2 years.....	3,892	2,501	1,391	19	20	17
2 years, less than 6.....	5,243	3,007	2,236	25	24	28
6 years, less than 10.....	5,368	3,365	2,003	26	27	25
10 years, less than 14.....	3,811	2,353	1,458	19	19	18
14 years, less than 18.....	2,329	1,315	1,014	11	10	12
18 years, and over.....	66	34	32	a/	a/	a/
Age not reported.....	3,001	1,154	1,847	--	--	--

a/ Less than 0.5 percent.

Table 8.--Dependency and neglect cases, 1949: Places of shelter care of children, in cases disposed of by 413 courts.

Place of shelter care	Dependency and neglect cases					
	Number			Percent		
	Total	Official	Unofficial	Total	Official	Unofficial
Total cases.....	23,710	13,729	9,981	--	--	--
Shelter care reported.....	20,290	12,242	8,048	100	100	100
No shelter care overnight.....	15,596	8,489	7,107	77	69	88
Shelter care overnight or longer a/ .....	4,694	3,753	941	23	31	12
Jail or police station.....	49	23	26	b/	b/	b/
Detention home.....	1,547	1,187	360	8	10	5
Boarding home.....	1,076	879	197	5	7	2
Other place.....	2,022	1,664	358	10	14	5
Shelter care not reported.....	3,420	1,487	1,933	--	--	--

a/ Where a child was cared for overnight in more than one place, only one place is reported. The selection is made in accordance with the order in which the places are listed.

b/ Less than 0.5 percent.

Table 9.--Dependency and neglect cases, 1949: Disposition of children's cases disposed of by 413 courts.

Disposition of case	Dependency and neglect cases					
	Number			Percent		
	Total	Official	Unofficial	Total	Official	Unofficial
Total cases.....	23,710	13,729	9,981	--	--	--
Disposition reported.....	22,265	12,648	9,617	100	100	100
Case dismissed with or without warning or adjustment.....	7,218	2,318	4,900	32	18	51
Case held open without further action.....	1,384	427	957	6	3	10
Child supervised by probation officer.....	2,589	1,472	1,117	12	12	12
Child committed or referred to:						
Public institution for delinquent children.	41	39	2	<u>a/</u>	<u>a/</u>	<u>a/</u>
Other public institution.....	1,011	977	34	5	8	<u>a/</u>
Other court.....	298	80	218	1	1	2
Public department.....	3,810	3,402	408	17	27	4
Private agency or institution.....	3,260	2,264	996	15	18	11
Other disposition of case.....	2,654	1,669	985	12	13	10
Disposition not reported.....	1,445	1,081	364	--	--	--

a/ Less than 0.5 percent.

## CHILDREN'S BUREAU STATISTICAL SERIES

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**CHILDREN'S BUREAU**

**STATISTICAL SERIES**

**NUMBER 9**

**CHARTS ON  
INFANT, CHILDHOOD  
and MATERNAL  
MORTALITY**

**1949**

**FEDERAL SECURITY AGENCY • SOCIAL SECURITY ADMINISTRATION • CHILDREN'S BUREAU • WASH. 25, D. C.**

1951

MAY 8 1952

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Prepared by  
Program Research Branch  
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## INTRODUCTION

The charts in this report for the year 1949 continue the series of graphic releases on infant, childhood, and maternal mortality issued previously by the Children's Bureau\*. All data are those published regularly or furnished through special tabulations by the National Office of Vital Statistics. The charts are of the following kinds:

Main causes ("C" charts): New procedures for classifying mortality data, including a new method of determining causes of death for tabulations purposes, became effective in the year 1949. The "C" charts show, for continental United States, the results of these procedures so far as main causes of infant, childhood, and maternal mortality are concerned. The most important feature of the new procedures is that, for each death where more than one cause is involved, the physician who completes the death certificate also selects the underlying cause of death. (By the earlier procedures this selection was made later, in accordance with rules which fixed a certain priority for each cause in relation to all others). The underlying cause of death stated by the physician is now tabulated in most instances, although both the underlying cause and an associated condition are coded for certain combinations of causes that are of special interest. Further information regarding the "C" charts is given on the next page.

Provisional data on comparability of the new and old procedures are being compiled from samples of 1949 and 1950 death certificates. The results should be available early in 1952, and charts dealing with this problem are being planned for a supplementary release.

State rates ("S" charts): These charts show the relative standings of the States, Territories and Insular Possessions in each type of rate during 1949. Particular attention is called to the childhood mortality rates in chart S-2 (page 8). No rates of that kind were published during the period 1942-48, because the figures on State child populations necessary for their computation are available only for years close to the time when a population census is taken.

Trends ("T" charts): The charts on pages 13-16 bring up to date the trend data for continental United States in respect to natality and infant, childhood, and maternal mortality. New estimates of the birth rate are shown in chart T-1. In the data plotted there, suitable allowances have been made for incomplete registration of births and for the States which were not in the Birth Registration Area before 1933.

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\* The report for the year 1948, which is available on request to the Children's Bureau (Statistical Series No. 6), includes charts on changes in the causes of infant, childhood, and maternal mortality over the decade 1939-48. The report for the year 1947 is no longer in supply, but is available for study in most State Health Departments and many libraries. A limited supply of the charts issued for the year 1946 is still available.

## NOTES ON "C" CHARTS

In each of these charts the International List numbers are included for the causes shown. These numbers correspond to the groupings of causes used in the classification of deaths. The numbers, group titles, and inclusions under these titles are given in the "Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death; Sixth Revision of the International Lists of Diseases and Causes of Death". This Manual, which was published in 1948 by the World Health Organization, is available in most libraries as well as in State and municipal health departments.

Infant mortality (C-1): Among all 111,531 deaths under 1 year represented in this chart, 40% were classified with immaturity (premature birth) as at least one cause. Approximately half of these were deaths in which immaturity was the only cause mentioned, though this does not necessarily mean that no other cause existed. These cases are represented by the block in the upper right-hand part of the chart ("immaturity unqualified"). In the other half of the cases, immaturity was reported in combination with postnatal asphyxia or atelectasis, birth injuries, or some other specific condition of early infancy. These cases, which are represented by the shaded parts of the other blocks in the right-hand part of the chart, reveal much more information about the causes of death of prematurely born infants than has been available before.

The new classification encourages physicians to define an immature infant as one weighing  $5\frac{1}{2}$  pounds (2,500 grams) or less at birth, or as one with a gestation period of less than 37 weeks. The extent of observance of this definition in the mortality data for 1949 is not known.

The classification does not take account of immaturity mentioned in combination with congenital malformations or the other conditions represented in the lower left part of the chart. Hence the count of deaths associated with immaturity is necessarily incomplete.

However, the classification permits a detailed breakdown to be made of the combinations of immaturity with diseases which, for graphic purposes, are grouped together as "other conditions of early infancy" in the lower right portion of the chart. The more important parts of this breakdown are shown on page 18 (table C-1), where neonatal and postneonatal infant mortality rates, by cause, are also given.

Childhood mortality (C-2): The rank order of the causes shown in chart C-2, as in any arrangement of data on leading causes, depends in part on the groupings of causes employed. Even so, it is apparent that accidents are the most outstanding cause of childhood mortality. Of all 34,404 deaths during 1949 among children of ages 1-14 years, 10,278 or 30% were due to accidents. Influenza and pneumonia constitute the next most serious cause, accounting for 9% of childhood deaths.

It will be noted that three or more causes are grouped together in some of the categories shown in the right-hand part of the chart. While these categories have some value for general purposes, it will be understood that they represent only one of the possible arrangements of the data that warrant consideration in child health work.

Maternal mortality (C-3): The total number of maternal deaths represented in this chart is 3216. It is estimated that this number would have been approximately 10% larger if the old procedure of classifying maternal deaths had been used.

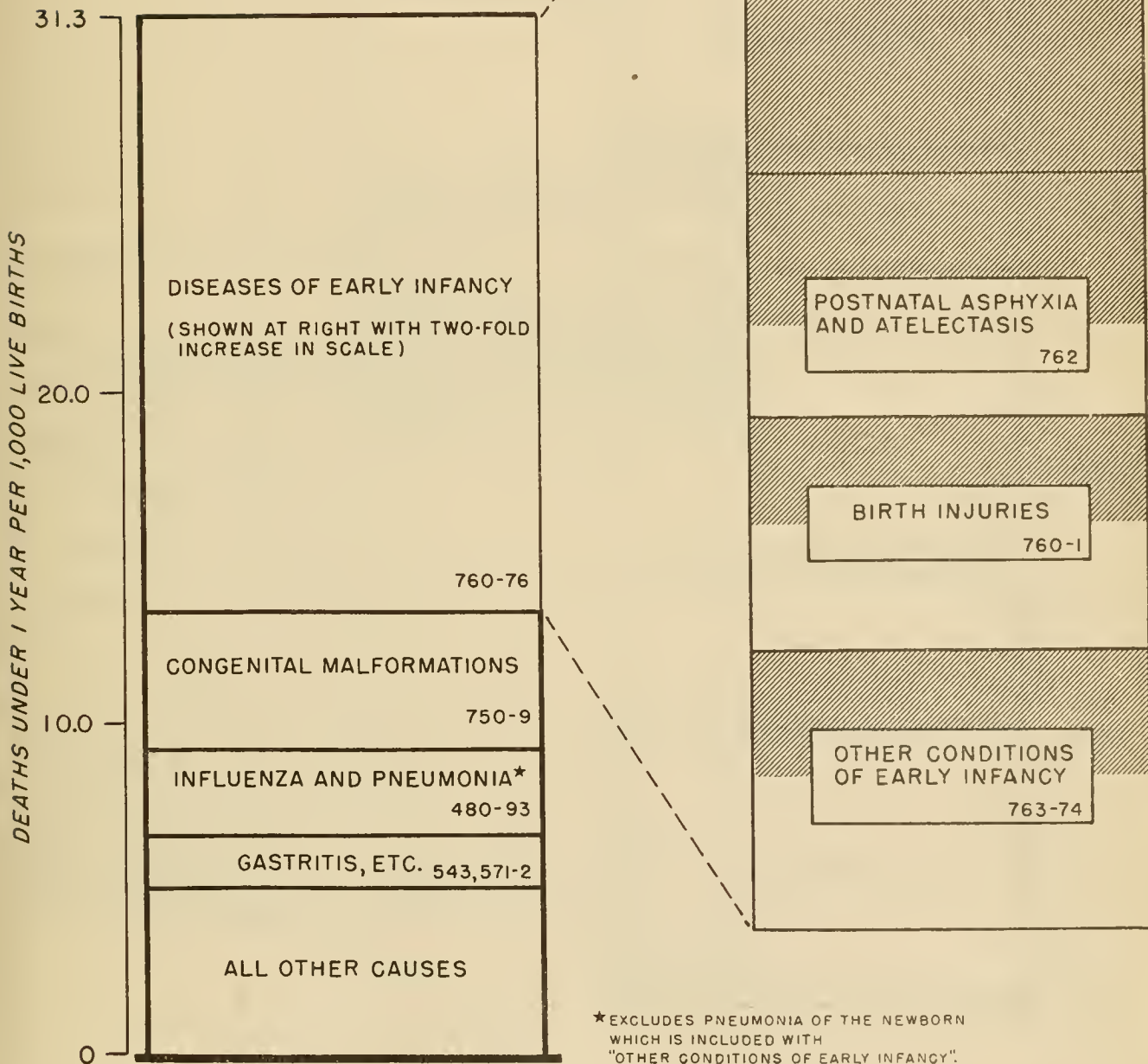
It is clear that toxemias and septic conditions (including septic abortion) are the two leading causes of maternal mortality, together accounting for over half the maternal deaths.

# CHART C-1. INFANT MORTALITY

MAIN CAUSES, U.S., 1949

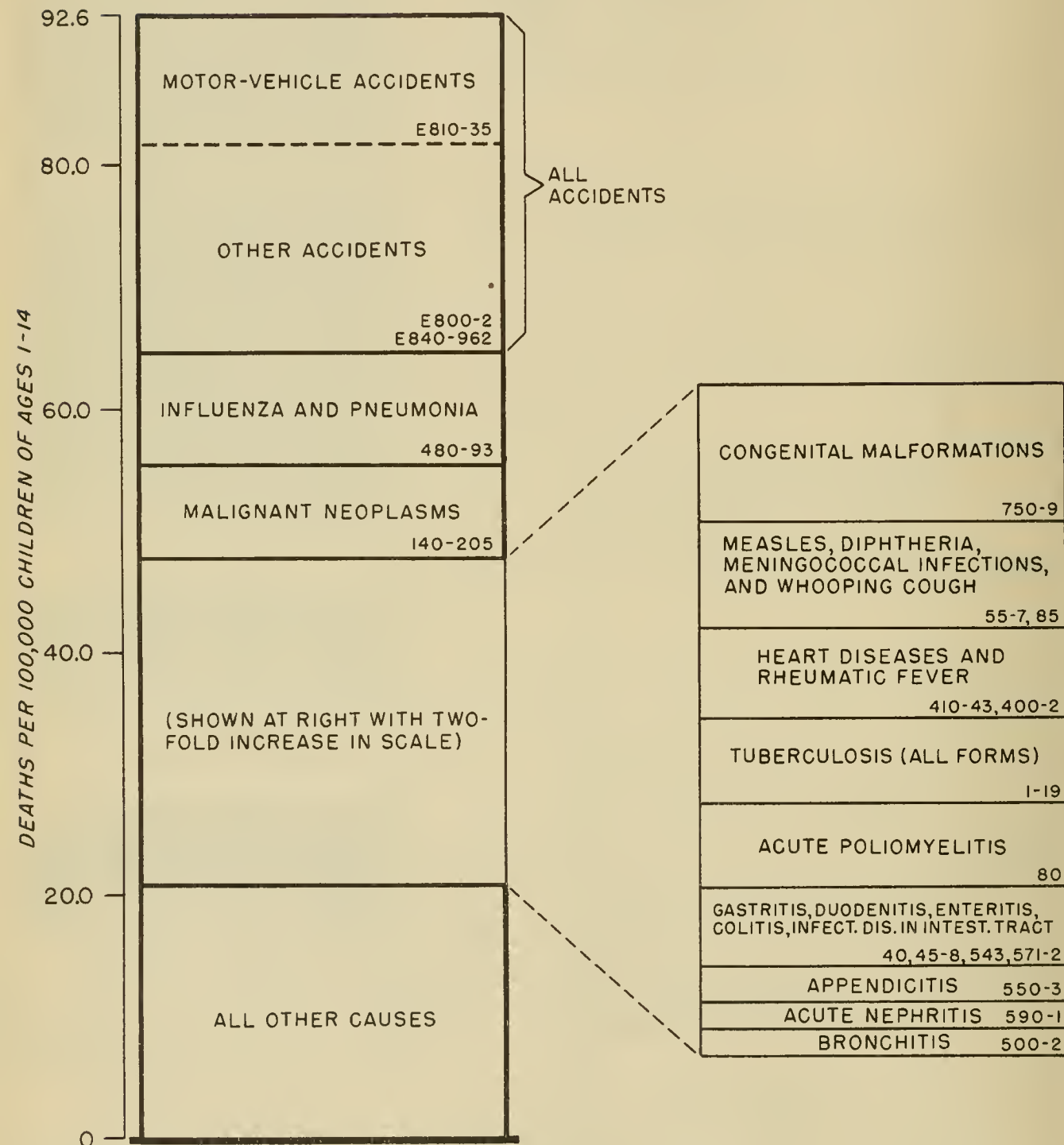
WITH IMMATURITY  
(PREMATURITY)

WITHOUT IMMATURITY



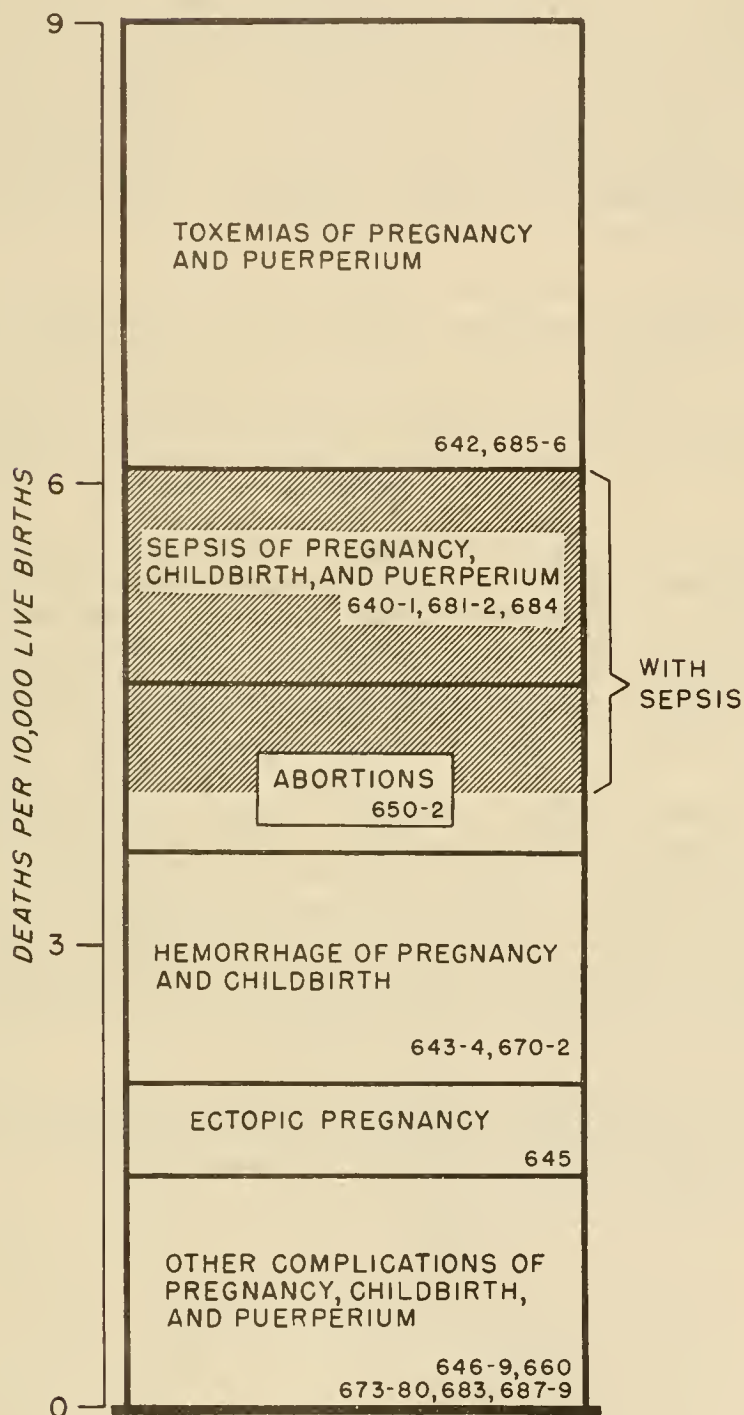
# CHART C-2. CHILDHOOD MORTALITY

MAIN CAUSES, U.S., 1949



# CHART C-3. MATERNAL MORTALITY

MAIN CAUSES, U.S., 1949



## NOTES ON "S" CHARTS

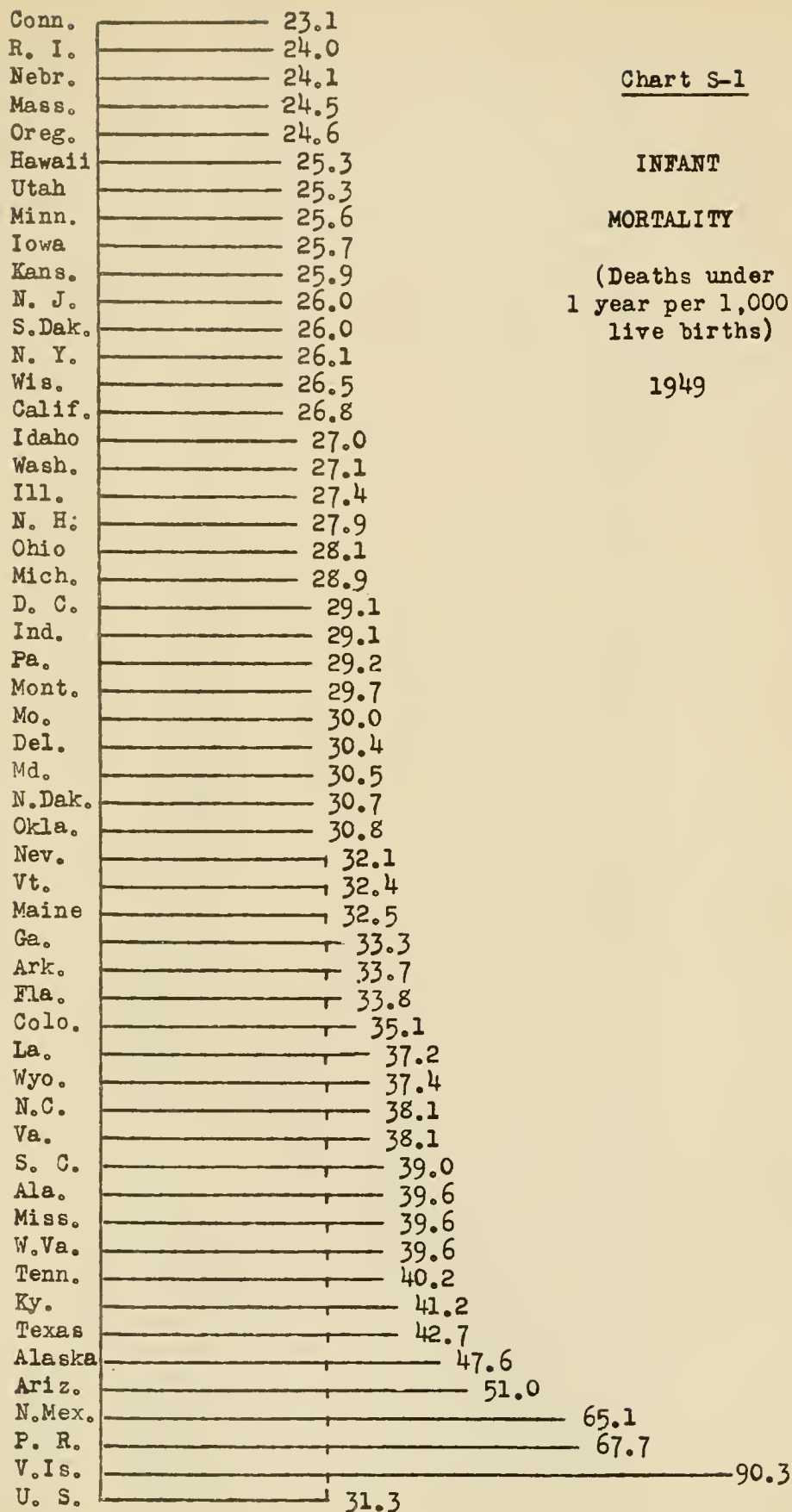
By way of stressing the variations in rates shown in these charts, it is worth noting that the approximate ratio of highest to lowest rates is as 1 to 4 for infant mortality, 1 to 8 for childhood mortality, and 1 to 10 for maternal mortality. It is worth remarking also that in 4 of the 53 areas the 1949 infant and childhood rates were higher than was true for the United States a decade earlier, when the infant rate was 48.0 and the childhood rate was 166.0. With respect to maternal mortality, however, the 1949 rates in all 53 areas were well below the U. S. rate of 40.4 in 1939.

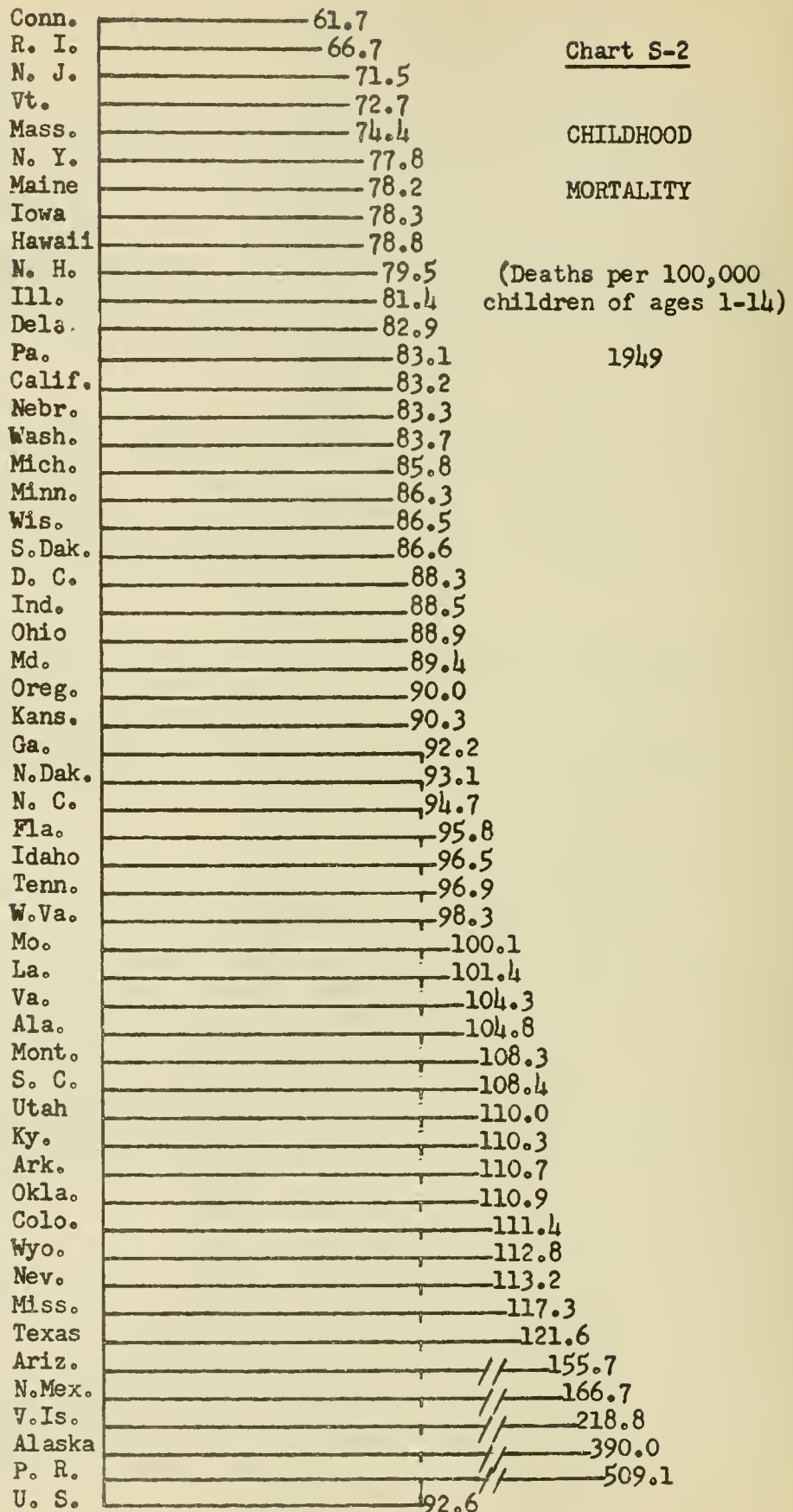
In general, relatively high rates occur in areas having low per capita income, and these areas tend to have high percentages of rural and nonwhite population. (For percentage of nonwhite births in each area, see last column of table S-5, page 25). Also, income level is basic to hospital and medical facilities, and is a very important factor affecting the percentage of births outside hospitals and with no medical attendance (charts S-4 and 5).

This report does not attempt to show rates by cause-of-death breakdowns in the 53 areas, as that would require a very large number of charts and tables. However, rates for detailed causes of infant or maternal mortality in any State are easily computed from the data provided in the annual volumes entitled "Vital Statistics of the United States", which are published by the Federal Security Agency and are available in most libraries.

The same volumes provide the numbers of childhood deaths from main causes in any given State, and corresponding rates may be computed by relating those numbers to the State's child population available from the 1950 census. For most purposes it is sufficiently accurate to relate 1949 deaths to 1950 child populations, as has been done for the State rates in chart S-2. The average effect of using this procedure is to decrease the rates by only a fraction of one percent.

As in other sections of this report, data for the United States in all "S" charts and tables are for continental United States (48 States and the District of Columbia).





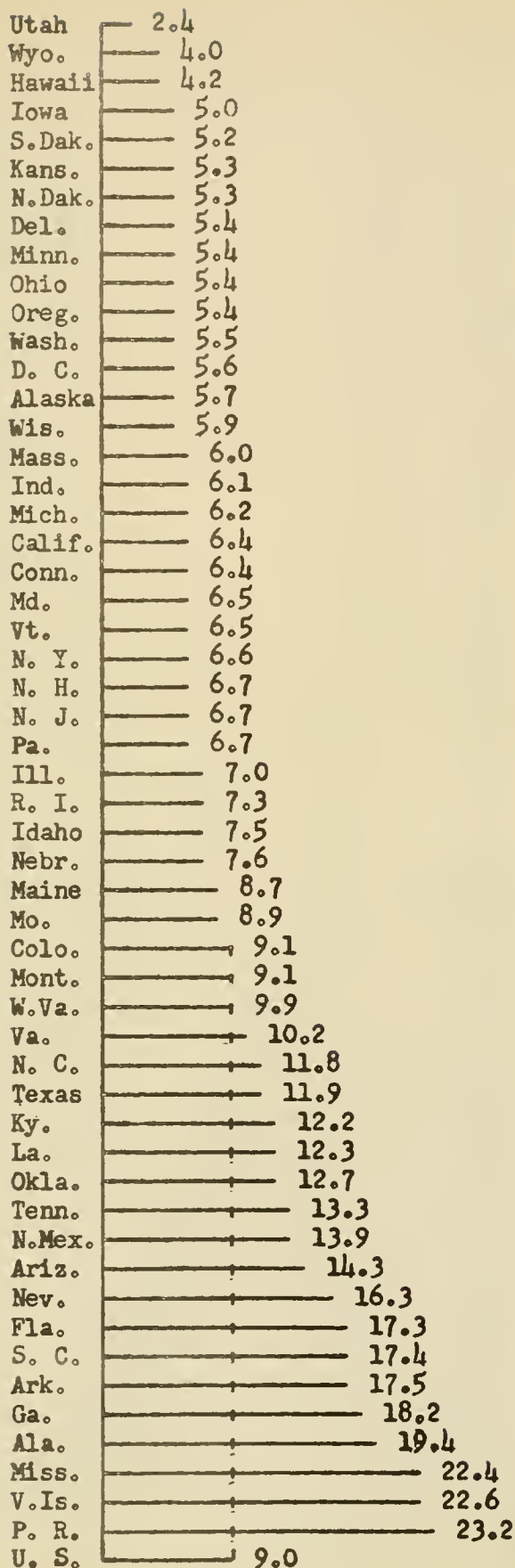


Chart S-3

MATERNAL

MORTALITY

(Maternal deaths  
per 10,000  
live births)

1949

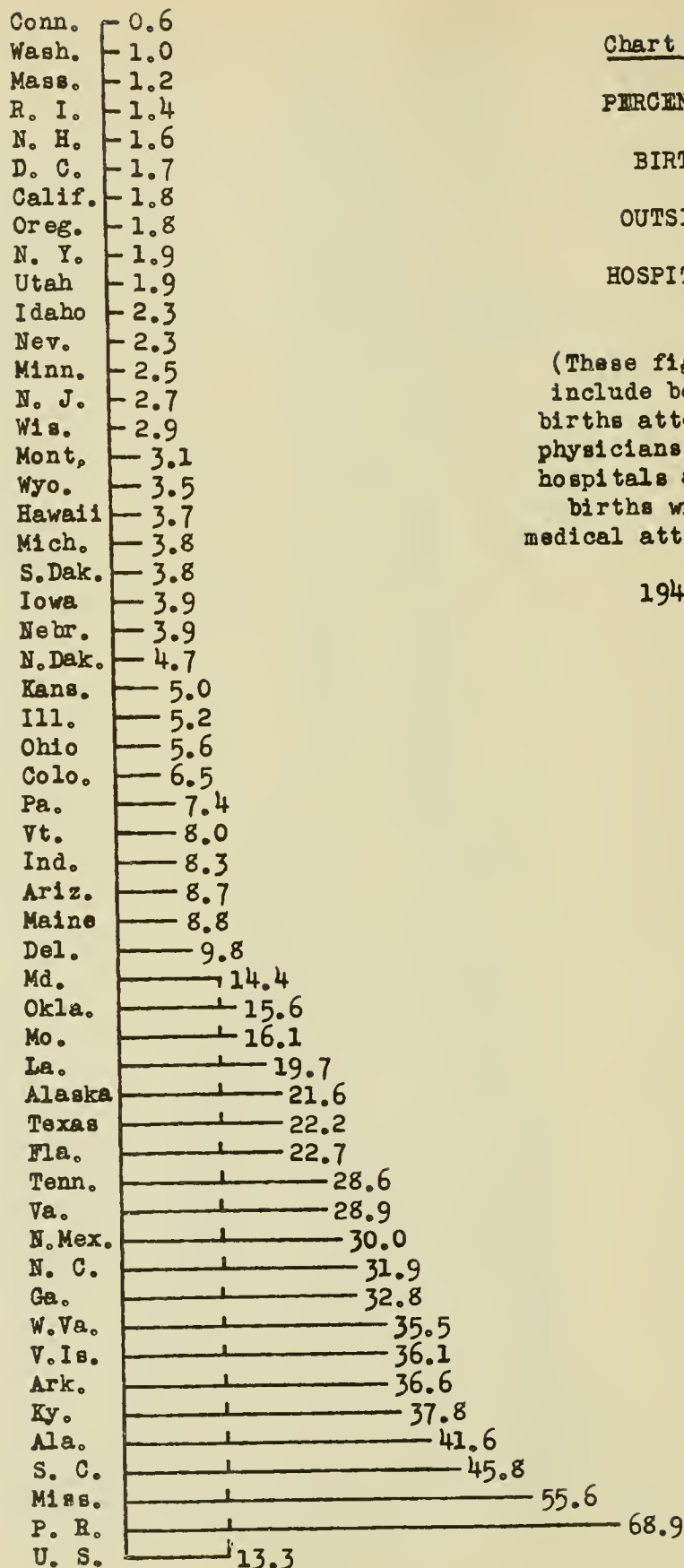


Chart S-4

PERCENT OF  
BIRTHS  
OUTSIDE  
HOSPITALS

(These figures  
include both the  
births attended by  
physicians outside  
hospitals and the  
births without  
medical attendance)

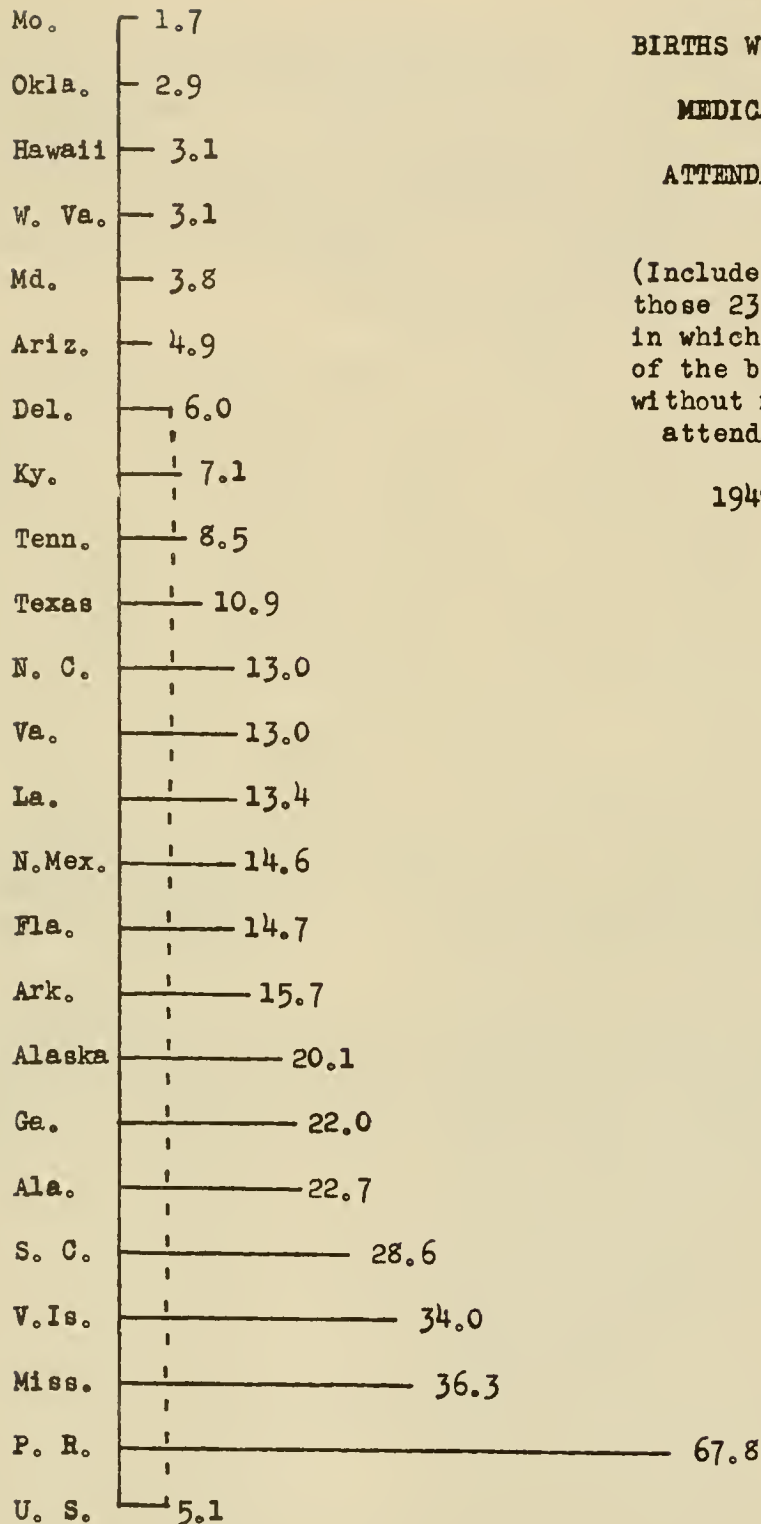
1949

Chart S-5

PERCENT OF  
BIRTHS WITHOUT  
MEDICAL  
ATTENDANCE

(Includes only  
those 23 areas  
in which over 1%  
of the births were  
without medical  
attendance)

1949



## NOTES ON "T" CHARTS

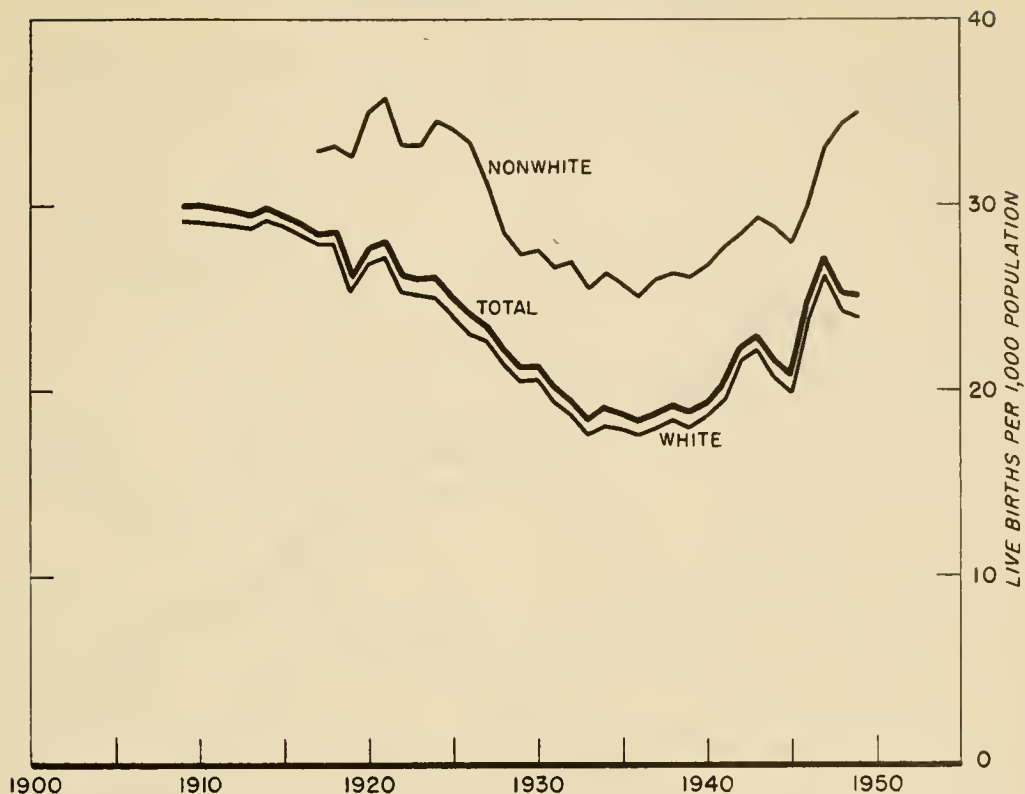
As mentioned in the introduction, the birth rates shown in chart T-1 have been estimated by making allowances for incomplete registration of live births and for States which were not in the Birth Registration Area until 1933. The estimates were made by P. K. Whelpton in collaboration with the National Office of Vital Statistics. From data published earlier on the trend of the rate for registered births only, it appeared that the 1947 peak in the rate for all race groups was higher than the 1915 level of the rate. Chart T-1 shows this was not the case.

The data on births by attendance shown in chart T-2 are for registered live births only. No estimates for total live births (including those which were unregistered) are available in respect to attendance at birth. However, it may be assumed that if such estimates were available for chart T-2, the band for the percentage with "no medical attendance" would be considerably larger than is actually shown, particularly for nonwhite births. At the same time the bands shown for "physician in home" and "physician in hospital" would be somewhat smaller. Data on births by attendance are not available for the years before 1935.

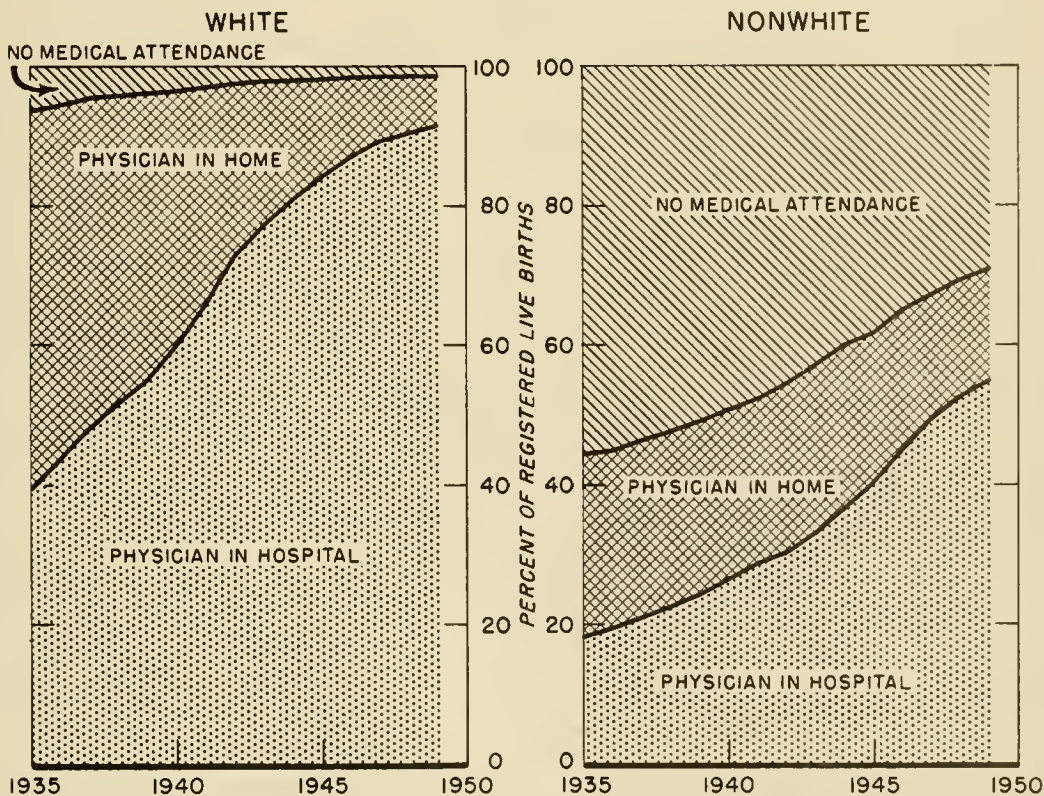
The data for each chart on mortality trends (T-3, 4, and 5) have been plotted on two different scales. In the larger plot the vertical scale is logarithmic. This enables the reader to judge, by inspection, the relative or percentage changes which have occurred in the rates shown. If, for example, one rate has been consistently larger than another, but both rates have decreased by the same percentage, the slopes of the two rates as plotted on the logarithmic scale are exactly the same.

A logarithmic scale has no zero point, however, and for that reason judgment of the absolute size of the rates is difficult on such a scale. To make up for this deficiency of the logarithmic scale, an insert chart showing the data plotted on an ordinary arithmetic scale is provided for each set of mortality trends.

**CHART T-1. BIRTH RATE, U.S., 1909-49**  
(DATA CORRECTED FOR INCOMPLETE REGISTRATION OF LIVE BIRTHS)

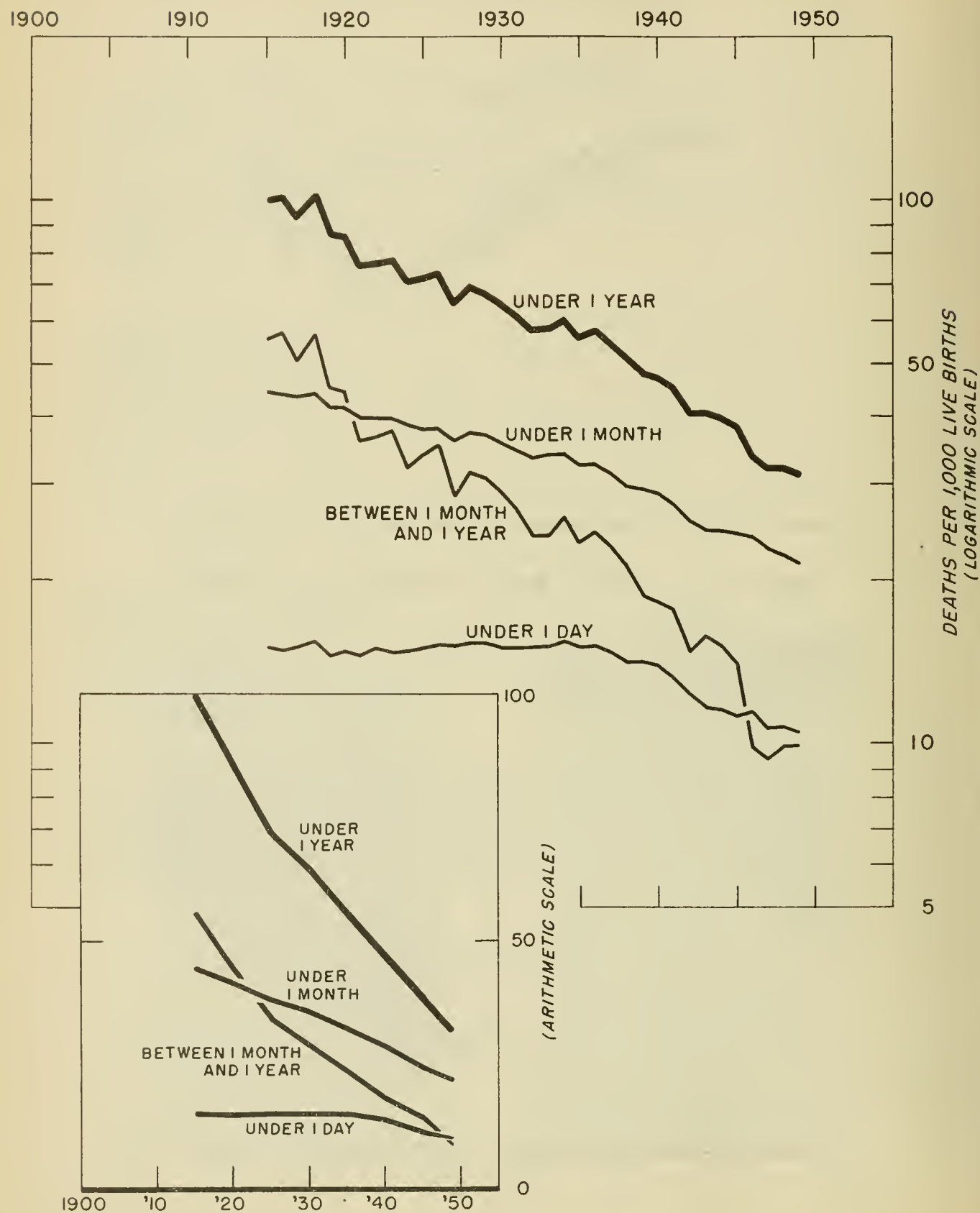


**CHART T-2. BIRTHS BY ATTENDANCE, U.S., 1935-49**



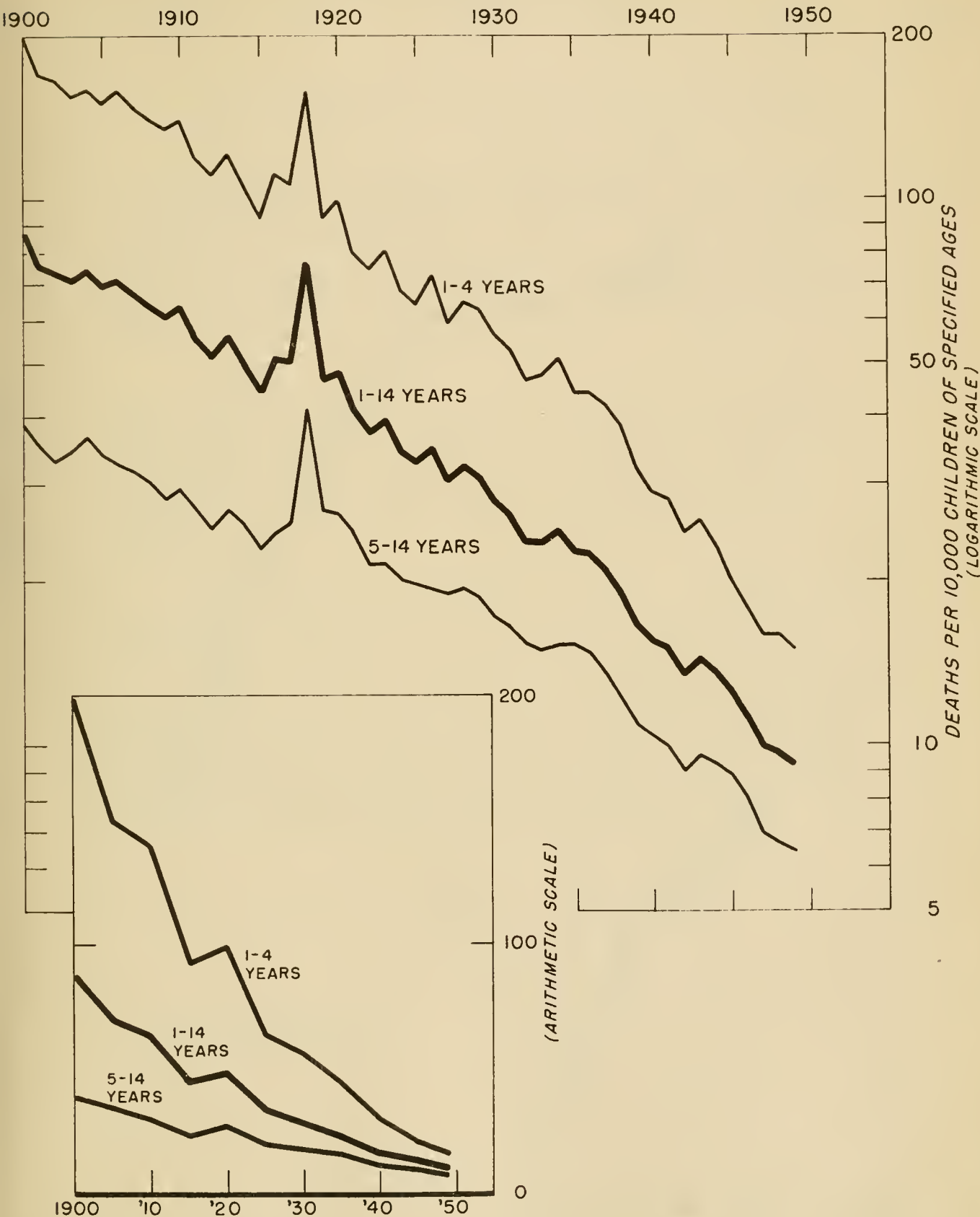
# CHART T-3. INFANT MORTALITY, 1915-49

(U.S. BIRTH REGISTRATION AREA)



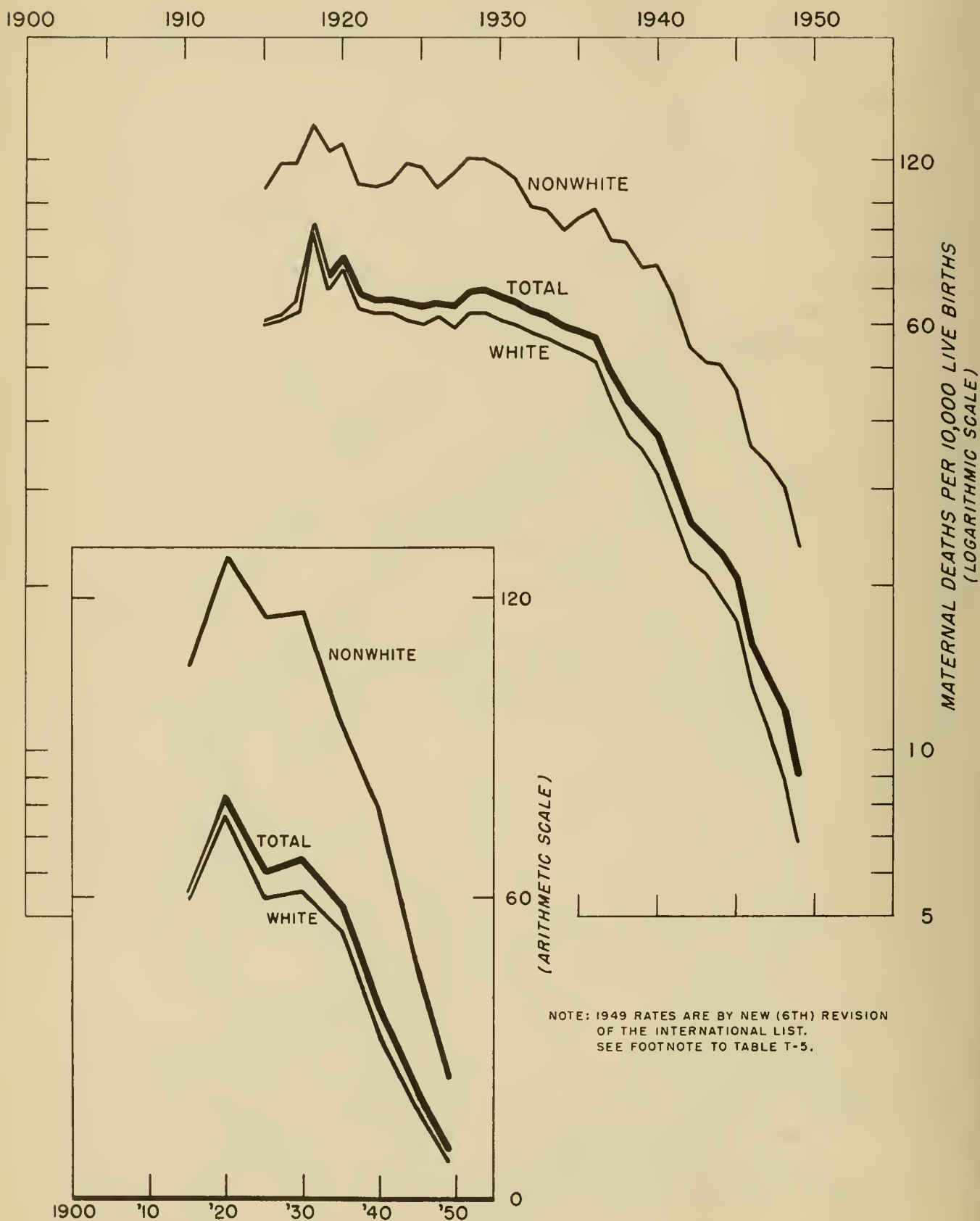
# CHART T-4. CHILDHOOD MORTALITY, 1900-49

(U.S. DEATH REGISTRATION AREA)



# CHART T-5. MATERNAL MORTALITY, 1915-49

(U.S. BIRTH REGISTRATION AREA)



## NOTES ON TABLES

So far as possible the tables are designated by letters and numbers corresponding to those used for the charts.

The tables provide more data than are shown in the charts. For example, data on the causes of infant death in the neonatal period (under 28 days) as compared with the postneonatal period (28 days to 1 year) are included in table C-1. Similarly, table C-2 includes data on the causes of death among preschool and school-age children, or those aged 1-4 and 5-14 years respectively. Table C-3 includes the rates and numbers of maternal deaths for white and nonwhite groups.

Each "S" table (except S-2) includes the rates, in each State, for white and nonwhite groups. In table S-2, no childhood mortality rates for white and nonwhite groups are given for individual States because estimates of the States' white and nonwhite child populations were not available when the table was prepared. For the United States as a whole, however, the rates for white and nonwhite children are appended to the table (page 22).

Table T-1 gives the estimated total number of live births in continental United States for each year since 1909. Registered live births in each year since 1935 are given in table T-2.

Tables T-3b and T-3c show white and nonwhite infant mortality rates, by age, for each year since 1916. The childhood rates in table T-4 do not include data for white and nonwhite children because the rates for those groups have changed in about the same proportions as the rates given in the table for children of all race groups. However, the rates for white and nonwhite children for the year 1949 are appended to the table (page 31).

Table C-1. INFANT MORTALITY RATES, BY AGE, FOR MAIN CAUSES: U. S., 1949.

Rates per 1,000 registered live births. Numbers after names of causes are category numbers of the Sixth Revision of the International List. Exclusive of fetal deaths.

Cause of death	Under 1 year	Under 28 days	28 days to 1 year
All causes.....	31.3	21.4	9.9
Certain diseases of early infancy.....760-76	18.0	17.3	0.7
Immaturity unqualified.....776	6.6	6.5	0.1
Postnatal asphyxia and atelectasis.....762	3.7	3.6	0.1
With immaturity (.5).....	2.3	2.3	0.0
Without immaturity (.0).....	1.4	1.4	0.1
Birth injuries.....760-1	3.5	3.4	0.0
With immaturity (.5).....	1.6	1.6	0.0
Without immaturity (.0).....	1.9	1.8	0.0
Pneumonia of newborn.....763	0.8	0.8	...
With immaturity (.5).....	0.3	0.3	...
Without immaturity (.0).....	0.6	0.6	...
Hemolytic disease of newborn (erythroblastosis)770	0.7	0.7	0.0
With immaturity (.5).....	0.1	0.1	0.0
Without immaturity (.0).....	0.6	0.5	0.0
Diarrhea of newborn.....764	0.3	0.3	0.0
With immaturity (.5).....	0.1	0.1	0.0
Without immaturity (.0).....	0.2	0.2	0.0
Neonatal disorders arising from maternal toxemia.....769	0.3	0.3	0.0
With immaturity (.5).....	0.2	0.2	0.0
Without immaturity (.0).....	0.1	0.1	0.0
Hemorrhagic disease of newborn.....771	0.3	0.3	0.0
With immaturity (.5).....	0.1	0.1	0.0
Without immaturity (.0).....	0.2	0.2	0.0
Other and ill-defined diseases peculiar to early infancy, including nutritional mal- adjustment.....765-8, 772-4	1.8	1.3	0.5
With immaturity (.5).....	1.2	1.0	0.2
Without immaturity (.0).....	0.6	0.3	0.2
Congenital malformations.....750-9	4.1	2.6	1.4
Influenza and pneumonia (exc. pneumonia of newborn).....480-93	2.6	0.0	2.5
All other diseases of respiratory system.....470-5, 500-27	0.4	0.1	0.3
Gastritis, duodenitis, enteritis, and colitis (exc. diarrhea of newborn).....543, 571-2	1.6	0.0	1.6
All infective and parasitic diseases.....001-138	0.9	0.2	0.8
Accidental mechanical suffocation in bed or cradle.....E924	0.4	0.1	0.3
All other accidental causes.....E800-923, E925-62	0.7	0.2	0.5
Other specified conditions.....Residual	1.6	0.5	1.1
Symptoms and ill-defined conditions.....780-95	1.1	0.6	0.5

Table C-2. CHILDHOOD MORTALITY RATES, BY AGE, FOR MAIN CAUSES: U. S., 1949.

Rates per 100,000 children of specified ages. Numbers after names of causes are category numbers of the Sixth Revision of the International List.

Name of cause	Ages 1-14	Ages 1-4	Ages 5-14
All causes.....	92.6	149.1	63.9
All accidents.....E800-962	27.7	37.8	22.5
Motor-vehicle accidents.....E810-35	9.7	11.6	8.8
Other accidents.....E800-2, E840-962	17.9	26.2	13.7
Influenza and pneumonia.....480-93	8.7	19.6	3.1
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues.....140-205	7.7	10.9	6.1
Congenital malformations.....750-9	5.6	12.1	2.3
Measles, diphtheria, meningococcal infections, and whooping cough.....055-7, 085	4.4	8.9	2.0
Measles.....085	1.5	2.8	0.9
Diphtheria.....055	1.2	2.3	0.6
Meningococcal infections.....057	1.1	2.3	0.5
Whooping cough.....056	0.5	1.5	0.0
Diseases of the heart and rheumatic fever.....410-43, 400-2	3.7	2.0	4.6
Diseases of the heart.....410-43	2.0	1.5	2.3
Rheumatic fever.....400-2	1.8	0.6	2.4
Tuberculosis, all forms.....001-19	3.5	6.6	1.9
Acute poliomyelitis.....080	3.5	2.7	3.8
Gastritis, duodenitis, enteritis, colitis, and certain infectious diseases in the intestinal tract.....543, 571-2, 040, 045-8	3.2	8.0	0.7
Appendicitis.....550-3	1.5	1.6	1.5
Acute nephritis and nephritis with edema, including nephrosis.....590-1	1.1	1.5	0.9
Bronchitis.....500-2	1.1	2.7	0.3
All other causes.....Residual	21.0	34.6	14.2

Table C-3. MATERNAL MORTALITY RATES AND NUMBERS OF MATERNAL DEATHS,  
BY RACE AND MAIN CAUSES: U. S., 1949.

Rates per 10,000 registered live births. Numbers after names of causes are category numbers of the Sixth Revision of the International List.

Name of cause	RATES			NUMBERS OF DEATHS		
	All races	White	Non-white	All races	White	Non-white
All causes (deliveries and complications of pregnancy, childbirth and puerperium).....640-89	9.0	6.8	23.5	3,216	2,099	1,117
Toxemias of pregnancy and puerperium (except abortion with toxemia).....642,685-6	2.9	2.1	8.0	1,033	652	381
Sepsis of pregnancy and puerperium (except abortion with sepsis).....640-1, 681-2, 684	1.4	1.2	3.3	516	358	158
Abortion with sepsis.....651	0.7	0.5	2.2	261	154	107
Abortion without sepsis or toxemia.....650	0.3	0.2	0.8	99	62	37
Abortion with toxemia, without sepsis.....652	0.1	0.1	0.3	34	20	14
Hemorrhage of pregnancy and childbirth.....643-4, 670-2	1.5	1.2	3.7	545	371	174
Ectopic pregnancy.....645	0.6	0.4	2.0	203	108	95
Other complications of pregnancy, childbirth and the puerperium.....646-9, 660, 673-80, 683, 687-9	1.5	1.2	3.2	525	374	151

Table S-1. INFANT MORTALITY RATE BY RACE IN EACH STATE, TERRITORY AND INSULAR POSSESSION, 1949.

Rates are deaths under 1 year per 1,000 registered live births. By place of residence for States, and by occurrence for Alaska, Hawaii, Puerto Rico, and Virgin Islands.

State	Rank of State	Rate		
		All races	White	Nonwhite
United States....	--	31.3	28.9	47.3
Alabama.....	43	39.6	32.6	51.0
Alaska.....	49	47.6	*	*
Arizona.....	50	51.0	41.3	112.9
Arkansas.....	35	33.7	31.7	39.8
California.....	15	26.8	26.2	34.0
Colorado.....	37	35.1	34.9	42.3
Connecticut.....	1	23.1	22.3	45.7
Delaware.....	27	30.4	26.7	48.2
Dist. of Columbia...	22	29.1	28.1	30.4
Florida.....	36	33.8	27.6	49.9
Georgia.....	34	33.3	28.6	41.0
Hawaii.....	6	25.3	*	*
Idaho.....	16	27.0	26.3	73.3
Illinois.....	18	27.4	26.0	40.5
Indiana.....	23	29.1	28.2	46.6
Iowa.....	9	25.7	25.5	51.5
Kansas.....	10	25.9	25.4	38.3
Kentucky.....	47	41.2	39.9	59.0
Louisiana.....	38	37.2	27.2	52.3
Maine.....	33	32.5	32.4	114.3
Maryland.....	28	30.5	26.5	45.0
Massachusetts.....	4	24.5	24.3	38.0
Michigan.....	21	28.9	27.8	40.9
Minnesota.....	8	25.6	25.1	69.1
Mississippi.....	44	39.6	31.7	45.8
Missouri.....	26	30.0	28.8	41.8
Montana.....	25	29.7	27.4	71.6
Nebraska.....	3	24.1	23.6	46.0
Nevada.....	31	32.1	31.0	45.0
New Hampshire.....	19	27.9	27.9	50.0
New Jersey.....	11	26.0	23.5	49.2
New Mexico.....	51	65.1	61.0	119.8
New York.....	13	26.1	25.0	38.3
North Carolina.....	40	38.1	30.2	54.2
North Dakota.....	29	30.7	29.3	94.3
Ohio.....	20	28.1	27.0	41.0
Oklahoma.....	30	30.8	28.3	50.8
Oregon.....	5	24.6	24.0	53.1
Pennsylvania.....	24	29.2	27.8	47.2
Puerto Rico.....	52	67.7	*	*
Rhode Island.....	2	24.0	23.4	45.0
South Carolina.....	42	39.0	29.5	50.2
South Dakota.....	12	26.0	24.1	70.3
Tennessee.....	46	40.2	37.8	50.7
Texas.....	48	42.7	41.4	50.8
Utah.....	7	25.3	24.7	68.8
Vermont.....	32	32.4	32.3	250.0
Virgin Islands.....	53	90.3	*	*
Virginia.....	41	38.1	32.7	53.5
Washington.....	17	27.1	26.0	58.1
West Virginia.....	45	39.6	39.0	48.9
Wisconsin.....	14	26.5	26.0	59.9
Wyoming.....	39	37.4	35.7	105.6

\* Rate not computed owing to uncertainty that race definitions were uniform in birth and death registration.

Table S-2. CHILDHOOD MORTALITY RATE IN EACH STATE, TERRITORY AND INSULAR POSSESSION, 1949

Rates are deaths per 100,000 children of ages 1-14. By place of residence for States, and by occurrence for Alaska, Hawaii, Puerto Rico and Virgin Islands.

State	Rank of State	Rate
United States.....	--	92.6 *
Alabama.....	37	104.8
Alaska.....	52	390.0
Arizona.....	49	155.7
Arkansas.....	42	110.7
California.....	14	83.2
Colorado.....	44	111.4
Connecticut.....	1	61.7
Delaware.....	12	82.9
District of Columbia.....	21	88.3
Florida.....	30	95.8
Georgia.....	27	92.2
Hawaii.....	9	78.8
Idaho.....	31	96.5
Illinois.....	11	81.4
Indiana.....	22	88.5
Iowa.....	8	78.3
Kansas.....	26	90.3
Kentucky.....	41	110.3
Louisiana.....	35	101.4
Maine.....	7	78.2
Maryland.....	24	89.4
Massachusetts.....	5	74.4
Michigan.....	17	85.8
Minnesota.....	18	86.3
Mississippi.....	47	117.3
Missouri.....	34	100.1
Montana.....	38	108.3
Nebraska.....	15	83.3
Nevada.....	46	113.2
New Hampshire.....	10	79.5
New Jersey.....	3	71.5
New Mexico.....	50	166.7
New York.....	6	77.8
North Carolina.....	29	94.7
North Dakota.....	28	93.1
Ohio.....	23	88.9
Oklahoma.....	43	110.9
Oregon.....	25	90.0
Pennsylvania.....	13	83.1
Puerto Rico.....	53	509.1
Rhode Island.....	2	66.7
South Carolina.....	39	108.4
South Dakota.....	20	86.6
Tennessee.....	32	96.9
Texas.....	48	121.6
Utah.....	40	110.0
Vermont.....	4	72.7
Virgin Islands.....	51	218.8
Virginia.....	36	104.3
Washington.....	16	83.7
West Virginia.....	33	98.3
Wisconsin.....	19	86.5
Wyoming.....	45	112.8

\* Rates for white and nonwhite children were 86.6 and 133.4, respectively.

Table S-3. MATERNAL MORTALITY RATE BY RACE IN EACH STATE, TERRITORY AND INSULAR POSSESSION, 1949.

Rates are maternal deaths per 10,000 registered live births. By place of residence for States, and by occurrence for Alaska, Hawaii, Puerto Rico and Virgin Islands.

State	Rank of State	Rate		
		All races	White	Nonwhite
United States.....	--	9.0	6.3	23.5
Alabama.....	50	19.4	13.6	28.9
Alaska.....	14	5.7	*	*
Arizona.....	44	14.3	9.7	43.6
Arkansas.....	48	17.5	10.2	39.5
California.....	19	6.4	5.8	13.7
Colorado.....	33	9.1	9.0	13.2
Connecticut.....	20	6.4	5.3	38.7
Delaware.....	8	5.4	4.9	7.9
Dist. of Columbia.....	13	5.6	3.4	8.5
Florida.....	46	17.3	9.9	36.5
Georgia.....	49	18.2	11.1	30.2
Hawaii.....	3	4.2	*	*
Idaho.....	29	7.5	7.6	0
Illinois.....	27	7.0	6.4	12.1
Indiana.....	17	6.1	5.4	18.1
Iowa.....	4	5.0	5.1	0
Kansas.....	6	5.3	4.3	15.7
Kentucky.....	39	12.2	11.4	24.1
Louisiana.....	40	12.3	6.4	21.2
Maine.....	31	8.7	8.2	285.7
Maryland.....	21	6.5	3.6	17.0
Massachusetts.....	16	6.0	5.8	14.6
Michigan.....	18	6.2	4.9	20.6
Minnesota.....	9	5.4	5.3	12.3
Mississippi.....	51	22.4	11.7	30.8
Missouri.....	32	8.9	7.6	21.2
Montana.....	34	9.1	8.9	12.3
Nebraska.....	30	7.6	7.8	0
Nevada.....	45	16.3	17.7	0
New Hampshire.....	24	6.7	6.7	0
New Jersey.....	25	6.7	5.4	18.5
New Mexico.....	43	13.9	13.4	20.0
New York.....	23	6.6	5.3	20.8
North Carolina.....	37	11.8	6.9	21.7
North Dakota.....	7	5.3	4.9	27.0
Ohio.....	10	5.4	5.0	11.1
Oklahoma.....	41	12.7	10.4	30.4
Oregon.....	11	5.4	4.9	28.0
Pennsylvania.....	26	6.7	6.0	16.0
Puerto Rico.....	53	23.2	*	*
Rhode Island.....	28	7.3	6.2	47.4
South Carolina.....	47	17.4	9.8	26.4
South Dakota.....	5	5.2	4.9	13.8
Tennessee.....	42	13.3	11.2	22.2
Texas.....	38	11.9	9.6	27.1
Utah.....	1	2.4	2.4	0
Vermont.....	22	6.5	6.5	0
Virgin Islands.....	52	22.6	*	*
Virginia.....	36	10.2	6.0	22.2
Washington.....	12	5.5	4.2	41.9
West Virginia.....	35	9.9	9.7	13.8
Wisconsin.....	15	5.9	5.3	41.8
Wyoming.....	2	4.0	4.1	0

\* Rate not computed owing to uncertainty that race definitions were uniform in birth and death registrations.

Table S-4. PERCENT OF BIRTHS BY ATTENDANCE AND RACE IN EACH STATE, TERRITORY AND INSULAR POSSESSION, 1949.

By mother's place of residence for States, and by occurrence for Alaska, Hawaii, Puerto Rico, and Virgin Islands. It is assumed that births in hospitals were attended by physicians or other qualified medical attendants. Based on registered live births.

State	ALL RACES (Percent)			WHITE (Percent)			NONWHITE (Percent)		
	In hosp-ital	Phys-ician in home	No med-ical atten-dance	In hosp-ital	Phys-ician in home	No med-ical atten-dance	In hosp-ital	Phys-ician in home	No med-ical atten-dance
U. S.	87	8	5	92	7	1	55	16	29
Alabama.....	58	19	23	77	20	3	28	18	54
Alaska.....	78	2	20	98	1	1	48	2	50
Arizona.....	91	4	5	92	4	4	83	4	13
Arkansas.....	63	21	16	78	20	2	21	23	56
California.....	98	1	1	99	1	0	96	3	1
Colorado.....	94	5	1	93	6	1	94	5	1
Connecticut...	99	1	0	99	1	0	98	2	0
Delaware.....	90	4	6	96	3	1	64	6	30
Dist. Columbia	98	2	0	99	1	0	97	3	0
Florida.....	77	8	15	92	6	2	39	14	47
Georgia.....	67	11	22	88	9	3	32	14	54
Hawaii.....	96	1	3	100	0	0	95	1	4
Idaho.....	98	2	0	98	2	0	94	2	4
Illinois.....	95	5	0	97	3	0	78	21	1
Indiana.....	92	7	1	93	7	0	67	26	7
Iowa.....	96	4	0	96	4	0	96	3	1
Kansas.....	95	5	0	96	4	0	79	20	1
Kentucky.....	62	31	7	63	30	7	52	44	4
Louisiana.....	80	7	13	92	6	2	63	7	30
Maine.....	91	9	0	91	9	0	89	11	0
Maryland.....	86	10	4	92	7	1	64	22	14
Massachusetts.	99	1	0	99	1	0	97	3	0
Michigan.....	96	4	0	97	3	0	89	10	1
Minnesota.....	98	2	0	98	2	0	93	4	3
Mississippi...	45	19	36	80	18	2	17	21	62
Missouri.....	84	14	2	85	14	1	78	14	8
Montana.....	97	3	0	97	3	0	90	5	5
Nebraska.....	96	4	0	96	4	0	94	5	1
Nevada.....	98	1	1	99	1	0	86	6	8
New Hampshire.	98	2	0	98	2	0	95	5	0
New Jersey....	97	2	1	98	2	0	91	8	1
New Mexico....	70	15	15	70	16	14	70	3	27
New York.....	98	2	0	98	2	0	96	3	1
North Carolina	68	19	13	85	13	2	35	30	35
North Dakota..	95	4	1	96	4	0	91	2	7
Ohio.....	95	5	0	95	5	0	90	10	0
Oklahoma.....	84	13	3	87	12	1	62	19	19
Oregon.....	98	2	0	98	2	0	95	3	2
Pennsylvania..	93	7	0	93	7	0	91	9	0
Puerto Rico...	31	1	68	30	1	69	34	1	65
Rhode Island..	99	1	0	99	1	0	98	2	0
South Carolina	54	17	29	84	14	2	19	21	60
South Dakota..	96	3	1	97	3	0	84	4	12
Tennessee.....	71	20	9	77	19	4	47	25	28
Texas.....	78	11	11	81	10	9	58	17	25
Utah.....	98	2	0	98	2	0	93	3	4
Vermont.....	92	8	0	92	8	0	75	25	0
Virgin Islands	64	2	34	42	5	53	65	2	33
Virginia.....	71	16	13	82	15	3	39	19	42
Washington....	99	1	0	99	1	0	98	1	1
West Virginia.	65	32	3	66	31	3	34	63	3
Wisconsin.....	97	3	0	97	3	0	92	7	1
Wyoming.....	97	3	0	97	3	0	84	10	6

Table S-5. NUMBER OF BIRTHS BY RACE AND PERCENT THAT WERE NONWHITE IN EACH STATE, TERRITORY AND INSULAR POSSESSION, 1949.

By place of residence for States, and by occurrence for Alaska, Hawaii, Puerto Rico, and Virgin Islands. Based on registered live births.

State	NUMBER OF BIRTHS			Percent that were nonwhite
	All races	White	Nonwhite	
United States.....	3,559,529	3,083,721	475,808	13.4
Alabama.....	84,418	52,213	32,205	38.1
Alaska.....	3,527	2,169	1,358	38.5
Arizona.....	20,275	17,520	2,755	13.6
Arkansas.....	45,609	34,215	11,394	25.0
California.....	245,199	224,785	20,414	8.3
Colorado.....	32,894	32,137	757	2.3
Connecticut.....	40,887	39,595	1,292	3.2
Delaware.....	7,369	6,103	1,266	17.2
Dist. Columbia.....	19,814	11,624	8,190	41.3
Florida.....	61,743	44,496	17,247	27.9
Georgia.....	93,259	58,518	34,741	37.3
Hawaii.....	14,150	2,802	11,348	80.2
Idaho.....	15,984	15,752	232	1.5
Illinois.....	189,313	170,376	18,937	10.0
Indiana.....	94,214	89,231	4,983	5.3
Iowa.....	61,871	61,308	563	0.9
Kansas.....	43,781	41,874	1,907	4.4
Kentucky.....	76,197	71,218	4,979	6.5
Louisiana.....	75,487	45,312	30,175	40.0
Maine.....	21,939	21,904	35	0.2
Maryland.....	53,597	41,849	11,748	21.9
Massachusetts.....	95,615	93,565	2,050	2.1
Michigan.....	157,178	144,052	13,126	8.4
Minnesota.....	73,929	73,119	810	1.1
Mississippi.....	66,415	29,097	37,318	56.2
Missouri.....	85,302	77,288	8,014	9.4
Montana.....	15,366	14,556	810	5.3
Nebraska.....	31,547	30,873	674	2.1
Nevada.....	3,673	3,384	289	7.9
New Hampshire.....	11,940	11,920	20	0.2
New Jersey.....	97,606	88,393	9,213	9.4
New Mexico.....	21,620	20,118	1,502	6.9
New York.....	301,287	274,783	26,504	8.8
North Carolina.....	107,970	72,415	35,555	32.9
North Dakota.....	16,846	16,475	371	2.2
Ohio.....	189,428	175,061	14,367	7.6
Oklahoma.....	49,702	44,114	5,588	11.2
Oregon.....	35,316	34,601	715	2.0
Pennsylvania.....	224,581	207,720	16,861	7.5
Puerto Rico.....	85,625	63,517	22,108	25.8
Rhode Island.....	16,492	16,070	422	2.6
South Carolina.....	58,516	31,649	26,867	45.9
South Dakota.....	17,211	16,486	725	4.2
Tennessee.....	82,854	67,573	15,281	18.4
Texas.....	202,297	175,709	26,588	13.1
Utah.....	21,164	20,888	276	1.3
Vermont.....	9,297	9,293	4	0.0
Virgin Islands.....	886	40	846	95.5
Virginia.....	82,960	61,351	21,609	26.0
Washington.....	56,542	54,631	1,911	3.4
West Virginia.....	52,586	49,684	2,902	5.5
Wisconsin.....	82,949	81,513	1,436	1.7
Wyoming.....	7,490	7,310	180	2.4

Table T-1. BIRTH RATE AND NUMBER OF LIVE BIRTHS, BY RACE: U. S., 1909-49.

Rates are per 1,000 estimated mid-year population of all ages, including armed forces overseas for 1940-46 and excluding armed forces overseas for 1947-49. All data are adjusted for underregistration of live births. Data prior to 1933 are adjusted for States not in the Birth Registration Area.

Year	Birth rate			Thousands of live births*		
	All races	White	Nonwhite	All races	White	Nonwhite
1949	25.1	23.8	35.0	3,722	3,171	551
1948	25.3	24.3	34.4	3,702	3,173	529
1947	27.0	26.3	33.1	3,876	3,377	499
1946	24.5	23.8	30.0	3,458	3,013	445
1945	20.7	19.9	28.0	2,894	2,487	408
1944	21.5	20.7	28.7	2,969	2,558	411
1943	22.9	22.2	29.3	3,127	2,713	413
1942	22.3	21.6	28.4	3,003	2,610	393
1941	20.3	19.5	27.7	2,710	2,332	378
1940	19.4	18.6	26.7	2,558	2,199	360
1939	18.8	18.0	26.1	2,466	2,117	349
1938	19.2	18.4	26.3	2,496	2,148	348
1937	18.7	17.9	26.0	2,413	2,071	342
1936	18.4	17.6	25.1	2,355	2,027	328
1935	18.7	17.9	25.8	2,377	2,042	334
1934	19.0	18.1	26.3	2,396	2,058	338
1933	18.4	17.6	25.5	2,307	1,982	325
1932	19.5	18.7	26.9	2,440	2,099	341
1931	20.2	19.5	26.6	2,506	2,170	335
1930	21.3	20.6	27.5	2,618	2,274	344
1929	21.2	20.5	27.3	2,582	2,244	339
1928	22.2	21.5	28.5	2,674	2,325	349
1927	23.5	22.7	31.1	2,802	2,425	377
1926	24.2	23.1	33.4	2,839	2,441	398
1925	25.1	24.1	34.2	2,909	2,506	403
1924	26.1	25.1	34.6	2,979	2,577	401
1923	26.0	25.2	33.2	2,910	2,531	380
1922	26.2	25.4	33.2	2,882	2,507	375
1921	28.1	27.3	35.8	3,055	2,657	398
1920	27.7	26.9	35.0	2,950	2,566	383
1919	26.2	25.5	32.6	2,740	2,387	353
1918	28.6	28.0	33.2	2,948	2,588	360
1917	28.5	28.0	32.9	2,944	2,587	357
1916	29.1	28.5	-	2,964	2,599	-
1915	29.5	28.9	-	2,965	2,594	-
1914	29.9	29.3	-	2,966	2,588	-
1913	29.5	28.8	-	2,869	2,497	-
1912	29.8	29.0	-	2,840	2,467	-
1911	29.9	29.1	-	2,809	2,435	-
1910	30.1	29.2	-	2,777	2,401	-
1909	30.0	29.2	-	2,718	2,344	-

\* Numbers of births are estimates rounded to the nearest thousand without being adjusted to totals, which are independently rounded.

Source: P. K. Whelpton, "Births and birth rates in the entire United States, 1909-1948", National Office of Vital Statistics, Vital Statistics--Special Reports, Vol. 33, No. 8, 1950.

Table T-2. PERCENT OF BIRTHS BY ATTENDANCE AND RACE, AND NUMBER  
OF REGISTERED LIVE BIRTHS BY RACE: U. S., 1935-49.

Tabulation of births by attendance was begun in 1935. Data cover registered live births only. If unregistered live births were included, the percentages attended by midwives or other nonmedical attendants would be increased substantially, and the other percentages would be decreased slightly.

Year and race	PERCENT DISTRIBUTION OF BIRTHS			Number of registered live births
	In hospital (physician attendant assumed)	Attended by physician outside hospital	Attended by midwife or other nonmed. attendant	
<u>All races</u>				
1949	86.7	8.1	5.1	3,559,529
1948	85.6	9.1	5.3	3,535,068
1947	84.8	10.1	5.1	3,699,940
1946	82.4	12.2	5.4	3,288,672
1945	78.8	14.7	6.4	2,735,456
1944	75.6	17.7	6.8	2,794,800
1943	72.1	21.0	7.0	2,934,860
1942	67.9	24.7	7.4	2,808,996
1941	61.2	30.2	8.6	2,513,427
1940	55.8	35.0	9.3	2,360,399
1939	51.1	39.1	9.7	2,265,588
1938	48.0	41.8	10.1	2,286,962
1937	44.8	44.6	10.6	2,203,337
1936	40.9	47.3	11.7	2,144,790
1935	36.9	50.6	12.5	2,155,105
<u>White</u>				
1949	91.6	6.9	1.4	3,083,721
1948	90.4	8.1	1.5	3,080,316
1947	89.3	9.2	1.5	3,274,620
1946	87.1	11.2	1.6	2,913,645
1945	84.3	13.7	2.0	2,395,563
1944	81.0	16.9	2.1	2,454,700
1943	77.2	20.6	2.2	2,594,763
1942	72.7	24.8	2.5	2,486,934
1941	65.7	31.2	3.1	2,204,903
1940	59.9	36.5	3.6	2,067,953
1939	55.0	41.1	3.9	1,982,671
1938	51.6	44.2	4.2	2,005,955
1937	48.2	47.3	4.5	1,928,437
1936	43.9	50.4	5.7	1,881,883
1935	39.6	54.0	6.4	1,888,012
<u>Nonwhite</u>				
1949	55.1	15.9	29.0	475,808
1948	52.9	16.6	30.6	454,752
1947	49.7	17.7	32.6	425,320
1946	45.2	20.0	34.8	375,027
1945	40.2	21.7	38.1	339,893
1944	37.0	23.1	39.9	340,100
1943	33.3	24.0	42.7	340,097
1942	30.6	24.0	45.3	322,062
1941	29.0	23.3	47.7	308,524
1940	26.7	24.1	49.2	292,446
1939	24.3	24.8	50.9	282,917
1938	22.7	25.0	52.3	281,007
1937	21.0	25.5	53.5	274,900
1936	19.5	25.5	55.0	262,907
1935	18.2	26.4	55.4	267,093

Table T-3a. INFANT MORTALITY RATE, BY AGE, FOR ALL RACE GROUPS: U. S., 1915-49.

Rates per 1,000 registered live births. Data are for States in the Birth Registration Area, which was begun in 1915 and has included all States since 1933.

Year	Under 1 year	Under 1 day	Under 1 month	Between 1 month and 1 year
1949	31.3	10.5	21.4*	9.9*
1948	32.0	10.7	22.2	9.8
1947	32.2	10.7	22.8	9.4
1946	33.8	11.4	24.0	9.8
1945	38.3	11.2	24.3	14.0
1944	39.8	11.5	24.7	15.1
1943	40.4	11.6	24.7	15.7
1942	40.4	12.3	25.7	14.7
1941	45.3	13.2	27.7	17.6
1940	47.0	13.9	28.8	18.2
1939	48.0	14.1	29.3	18.7
1938	51.0	14.1	29.6	21.4
1937	54.4	14.7	31.3	23.1
1936	57.1	15.1	32.6	24.5
1935	55.7	15.0	32.4	23.3
1934	60.1	15.4	34.1	26.0
1933	58.1	15.1	34.0	24.1
1932	57.6	15.0	33.5	24.1
1931	61.6	15.0	34.6	27.0
1930	64.6	15.0	35.7	28.9
1929	67.6	15.3	36.9	30.7
1928	68.7	15.3	37.2	31.5
1927	64.6	15.1	36.1	28.5
1926	73.3	15.2	37.9	35.4
1925	71.7	15.0	37.8	33.9
1924	70.8	14.8	38.6	32.2
1923	77.1	14.7	39.5	37.6
1922	76.2	14.9	39.7	36.5
1921	75.6	14.5	39.7	35.9
1920	85.8	14.8	41.5	44.3
1919	86.6	14.5	41.5	45.1
1918	100.9	15.4	44.2	56.7
1917	93.8	15.0	43.4	50.4
1916	101.0	14.8	44.1	56.9
1915	99.9	15.0	44.4	55.5

\* In accordance with the new classification procedures, these 1949 rates are for "under 28 days" and "28 days to 1 year". The former rate would be increased less than 1%, and the latter rate would be decreased less than 2%, if the 1949 data had been tabulated by the age grouping used for 1948 and earlier years.

Table T-3b. INFANT MORTALITY RATE, BY AGE, FOR WHITE GROUPS: U. S., 1916-49.

Rates per 1,000 registered live births. Data are for States in the Birth Registration Area, which was begun in 1915 and has included all States since 1933.

Year	Under 1 year	Under 1 day	Under 1 month	Between 1 month and 1 year
1949	28.9	10.1	20.3*	8.5*
1948	29.9	10.3	21.2	8.7
1947	30.1	10.4	21.7	8.4
1946	31.8	11.2	23.1	8.7
1945	35.6	11.0	23.3	12.3
1944	36.9	11.2	23.6	13.3
1943	37.5	11.4	23.7	13.8
1942	37.3	12.1	24.5	12.8
1941	41.2	12.9	26.1	15.1
1940	43.2	13.6	27.2	16.0
1939	44.3	13.8	27.8	16.5
1938	47.1	13.9	28.3	18.8
1937	50.3	14.5	29.7	20.6
1936	52.9	14.9	31.0	21.9
1935	51.9	14.8	31.0	20.9
1934	54.5	15.2	32.3	22.2
1933	52.8	14.9	32.1	20.7
1932	53.3	14.8	32.0	21.3
1931	57.4	14.8	33.2	24.2
1930	60.1	14.8	34.2	25.9
1929	63.2	15.2	35.6	27.6
1928	64.0	15.2	35.7	28.3
1927	60.6	15.0	35.0	25.6
1926	70.0	15.1	37.1	32.9
1925	68.3	14.9	36.8	31.5
1924	66.8	14.7	37.4	29.4
1923	73.5	14.7	38.6	34.9
1922	73.2	14.8	38.8	34.4
1921	72.5	14.4	38.7	33.8
1920	82.1	14.7	40.4	41.7
1919	83.0	14.4	40.3	42.7
1918	97.4	15.4	43.3	54.1
1917	90.5	14.9	42.6	47.9
1916	99.0	14.7	43.5	55.5

\* See footnote to Table T-3a.

Table T-3c. INFANT MORTALITY RATE, BY AGE, FOR NONWHITE GROUPS: U. S., 1916-49.

Rates per 1,000 registered live births. Data are for States in the Birth Registration Area, which was begun in 1915 and has included all States since 1933.

Year	Under 1 year	Under 1 day	Under 1 month	Between 1 month and 1 year
1949	47.3	12.8	28.6*	18.8*
1948	46.5	12.9	29.1	17.4
1947	48.5	13.5	31.0	17.5
1946	49.5	13.4	31.5	17.9
1945	57.0	12.7	32.0	25.0
1944	60.3	13.2	32.5	27.8
1943	62.5	13.2	32.9	29.6
1942	64.6	14.4	34.6	30.0
1941	74.8	15.7	39.0	35.8
1940	73.8	16.0	39.7	34.1
1939	74.2	16.2	39.6	34.6
1938	79.1	15.8	39.1	40.0
1937	83.2	16.1	42.1	41.1
1936	87.6	16.4	43.9	43.7
1935	83.2	16.2	42.7	40.5
1934	94.4	16.3	45.3	49.1
1933	91.3	16.6	45.8	45.5
1932	86.2	16.3	43.7	42.5
1931	93.1	16.6	45.2	47.9
1930	99.9	16.6	47.4	52.5
1929	102.2	16.5	47.3	54.9
1928	106.2	16.5	48.8	57.4
1927	100.1	16.0	46.1	54.0
1926	111.8	15.8	48.0	63.8
1925	110.8	16.4	49.5	61.3
1924	112.9	15.7	51.2	61.7
1923	117.4	15.3	49.9	67.5
1922	110.0	15.4	49.9	60.1
1921	108.5	15.0	50.3	58.2
1920	131.7	15.5	55.0	76.7
1919	130.5	15.8	55.2	75.3
1918	161.2	15.2	60.5	100.7
1917	150.7	16.8	58.0	92.7
1916	184.9	20.6	68.9	116.0

\* See footnote to Table T-3a.

Table T-4. CHILDHOOD MORTALITY RATE, BY AGE: U. S., 1900-49

Rates are deaths per 10,000 children of specified ages.  
Data are for States in the Death Registration Area, which  
was begun in 1900 and has included all States since 1933.

Year	1-14 years	1-4 years	5-14 years	Year	1-14 years	1-4 years	5-14 years
1949	9.3*	14.9*	6.4*	1924	34.4	68.3	20.1
1948	9.7	15.9	6.6	1923	39.1	80.7	21.5
1947	9.9	15.9	6.9	1922	37.1	74.2	21.4
1946	11.3	18.0	8.1	1921	41.1	80.1	24.7
1945	12.5	20.1	8.9	1920	47.9	98.7	26.4
1944	13.6	23.1	9.3	1919	46.7	92.8	26.9
1943	14.4	25.6	9.6	1918	76.5	157.4	41.3
1942	13.5	24.4	9.0	1917	50.3	106.6	25.6
1941	15.0	28.1	9.9	1916	51.1	111.2	24.5
1940	15.5	29.0	10.4	1915	44.3	92.4	23.0
1939	16.6	31.8	10.9	1914	49.7	104.2	25.4
1938	19.0	38.4	12.1	1913	55.9	120.8	27.0
1937	20.9	41.9	13.5	1912	51.4	110.9	24.8
1936	22.3	44.0	14.8	1911	55.5	119.5	27.0
1935	22.7	44.1	15.3	1910	63.3	139.7	29.4
1934	24.6	50.8	15.3	1909	60.9	134.9	28.2
1933	23.5	47.3	15.0	1908	63.8	139.7	30.3
1932	23.6	46.2	15.4	1907	67.1	146.8	31.7
1931	26.3	52.7	16.6	1906	71.0	158.0	32.7
1930	27.8	56.4	17.2	1905	69.3	149.9	34.0
1929	31.0	62.6	18.7	1904	73.9	159.2	36.7
1928	32.4	64.8	19.4	1903	70.7	154.2	34.4
1927	30.4	59.1	18.9	1902	73.1	165.6	33.1
1926	34.8	72.3	19.3	1901	75.8	169.5	35.4
1925	32.8	64.1	19.7	1900	86.6	198.4	38.6

\* In 1949 the rate for white children of ages 1-14 years was 8.7 and the corresponding rate for nonwhite children was 13.3. For ages 1-4 the white and nonwhite rates were 13.7 and 23.9, while for ages 5-14 the white and nonwhite rates were 6.1 and 8.3, respectively.

Table T-5. MATERNAL MORTALITY RATE, BY RACE: U. S., 1915-49

Rates per 10,000 registered live births. Data are for States in the Birth Registration Area, which was begun in 1915 and has included all States since 1933.

Year	All races	White	Nonwhite
1949	9.0*	6.8*	23.5*
1948	11.7	8.9	30.1
1947	13.5	10.9	33.5
1946	15.7	13.1	35.9
1945	20.7	17.2	45.5
1944	22.8	18.9	50.6
1943	24.5	21.1	51.0
1942	25.9	22.2	54.4
1941	31.7	26.6	67.8
1940	37.6	32.0	77.3
1939	40.4	35.3	76.2
1938	43.5	37.7	84.9
1937	48.9	43.6	85.8
1936	56.8	51.2	97.2
1935	58.2	53.1	94.6
1934	59.3	54.4	89.7
1933	61.9	56.4	96.7
1932	63.3	58.0	98.0
1931	66.1	60.0	111.0
1930	67.3	61.0	117.0
1929	69.5	63.0	120.0
1928	69.2	63.0	121.0
1927	64.7	59.0	113.0
1926	65.6	62.0	107.0
1925	64.7	60.0	116.0
1924	65.6	61.0	118.0
1923	66.5	63.0	109.0
1922	66.4	63.0	107.0
1921	68.2	64.0	108.0
1920	79.9	76.0	128.0
1919	73.7	70.0	124.0
1918	91.6	89.0	139.0
1917	66.2	63.0	118.0
1916	62.2	61.0	118.0
1915	60.8	60.0	106.0

\* Maternal deaths occurring in 1949 were classified by the new (6th) Revision of the International List. If the data had been classified by the procedures used for 1948 and earlier years, the 1949 rates would have been approximately 10% higher.

## CHILDREN'S BUREAU STATISTICAL SERIES

Bulletins in this series present analyses of periodic data useful to research, administrative, and informational specialists in the field of services for children. In these bulletins from time to time will appear data on the operations of public health and welfare programs, statistics on conditions of child life, and related source materials. Copies are available without charge. If you would like to receive future issues in this series, please send to the Children's Bureau a request that your name be placed on this mailing list.

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CHILDREN'S BUREAU

STATISTICAL SERIES

NUMBER **10**

*one in three hundred...*

CHILDREN SERVED

BY THE

CRIPPLED CHILDREN'S

PROGRAM IN 1948

This is the first release in a series which will be based on data provided to the Children's Bureau by State crippled children's agencies. The reporting system was designed by Lillian R. Freedman, Chief of the Health Program Section. Jerry Solon, Program Analyst, wrote the report under the supervision of Miss Freedman.

## CHILDREN SERVED

## BY THE

## CRIPPLED CHILDREN'S

## PROGRAM IN 1948

*one in three hundred..*

---

■ ONE CHILD OUT OF EVERY THREE HUNDRED CHILDREN in the United States received "crippled children's services" in 1948.

"Crippled children's services" means here the diagnostic and treatment services given to children under the State crippled children's programs. Every State (including, as the term is used in this paper, the District of Columbia, Alaska, Hawaii, Puerto Rico and the Virgin Islands) has such a program. These programs are cooperatively financed by Federal funds, appropriated under the Social Security Act, and by State funds; in some jurisdictions local funds are also used.

Services under the programs are provided by physicians and surgeons, nurses, medical social workers, physical therapists and occupational therapists, nutritionists, dentists and orthodontists, speech and hearing therapists, and other medical personnel. Children receive services mainly in clinics, hospitals, convalescent homes, physicians' offices, and in their own homes.

### TYPES OF SERVICES

In this the thirteenth year of its operation, the Federal-State program reached 175,000 children under 21 years of age.

Nine out of every ten of the children received services which included attendance of physicians. These 155,000 children received clinic services, hospital in-patient care, con-

valescent-home care, or services by physicians through office and home visits (see Table 1).

While receiving direct services from a physician supervising their care, they were also served, as needed, by nurses, physical therapists, medical social workers, and the other personnel making up the rounded team of the crippled children's program. An additional 20,000 children received services from one or more members of the team without being seen by a physician.

. The proportions of children who received the various types of services which included attendance of physicians are shown in Chart 1. Most of the children were seen at clinics. They came either to permanent clinic centers or, in more isolated areas, to itinerant clinics held at intervals in outlying areas.

Usually the State programs also make provisions for children to be seen by physicians in their offices or in the child's home. These arrangements enable children to receive diagnostic or treatment services in lieu of or supplemental to clinic services; for example, when clinic facilities are not available, or when the services of a specialist not available in a clinic are needed. About 12,000 children were served in this way by physicians during the year.

One child out of five was hospitalized. A very small proportion (3 percent) received services in convalescent homes. These in-patient services constituted the most expensive single element in the program, because of the high unit cost of such care and the long periods of hospitalization and convalescent care often needed. Hospital and convalescent-home care make up about half of all expenditures of Federal funds and the matching portions of State funds under the crippled children's programs.

#### MORE CHILDREN ARE RECEIVING SERVICES EACH YEAR

The State programs are reaching a gradually widening circle of crippled children as funds, facilities, and personnel are added from time to time, as itinerant clinics make the rounds of the States and case finding methods are extended, and as different types of conditions are included under the programs. Thus treatment for children with rheumatic fever and heart disease, cerebral palsy, epilepsy, speech and hearing defects, and others

TYPES OF SERVICES RECEIVED UNDER THE  
CRIPPLED CHILDREN'S PROGRAM IN 1948<sup>a</sup>

(Totals rounded to nearest 1,000)

Type of service	Number of children	Amount of service	
		Total	Average per child <sup>b</sup>
Any combination of services _____	175,000	_____	_____
Any combination of services which included attendance of physician (1-4 below) _____	155,000	_____	_____
		Visits	
1. Clinic service _____	131,000	284,000	2.2
2. Physician's office and home services _____	12,000	39,000	3.1
		Days' care	
3. Hospital in-patient care _____	32,000	1,335,000	41.5
4. Convalescent-home care _____	5,000	484,000	97.1
Any combination of other services exclusive of 1-4 above _____	20,000	_____	_____

<sup>a</sup> Services provided or purchased by official State agencies under the Social Security Act, Title V, Part 2. Data are for total U. S. including the 48 States, District of Columbia, Alaska, Hawaii, Puerto Rico and Virgin Islands.

<sup>b</sup> Based on unrounded figures.

**MOST OF THE 155,000 CHILDREN WHO RECEIVED SERVICES  
OF PHYSICIANS UNDER THE CRIPPLED CHILDREN'S  
PROGRAM IN 1948 WERE ATTENDED AT CLINICS**

Many also received surgical and hospital care

Each of these  
types of services . . .

was received by the proportion shown below:

**CLINIC  
SERVICE**

85%

**HOSPITAL IN-  
PATIENT CARE**

21%

**CONVALESCENT-  
HOME CARE**

3%

**PHYSICIAN'S  
OFFICE AND  
HOME SERVICES**

8%

Some children received  
several types of services,  
and so show up in more  
than one group.

are gradually being added by States to programs which in the past included only children with orthopedic and plastic conditions. Treatment for children with such additional conditions is usually inaugurated through special programs set up in selected areas of a State.

At least 50 percent more children received services in 1948 than in 1943,\* the number having mounted gradually over that period (see Table 2\*\*). The increase has been much more rapid than the growth in the child population, which increased 6 percent from 1943 to 1948. The ratio of children who received services per 1,000 children under 21 years of age was 2.3 in 1943, and 3.3 in 1948.

The expansion of the program took place almost entirely in the form of services to children in clinics. Chart 2, which--along with Table 2--traces the major services since 1937 (data are not available for 1936, the first year of the Federal-State program), shows the rising trend in the number of children who were attended at clinics or through physicians' office or home visits. About 80,000 children annually received these services in the early years of the program. After an upward trend, services were curtailed because of the wartime shortages of personnel and facilities. Since the war, the number of children receiving these services has increased at an annual rate of roughly 15 percent.\*\*\* About 138,000 children, in 1948, received clinic services and physician's office and home services.

In contrast to the rapidly gaining trend of clinic services, approximately the same numbers of children as in the prewar years received hospital and convalescent-home care in 1948. The number of hospitalized children fell off during the war to roughly 24,000 a year, but quickly built up again to 32,000.

Little change has taken place in the frequency of the average child's visits for clinic services and physician's office and home services. During each year throughout the period 1937-48, there was an average of somewhat over 2 visits per child among the children receiving these services.

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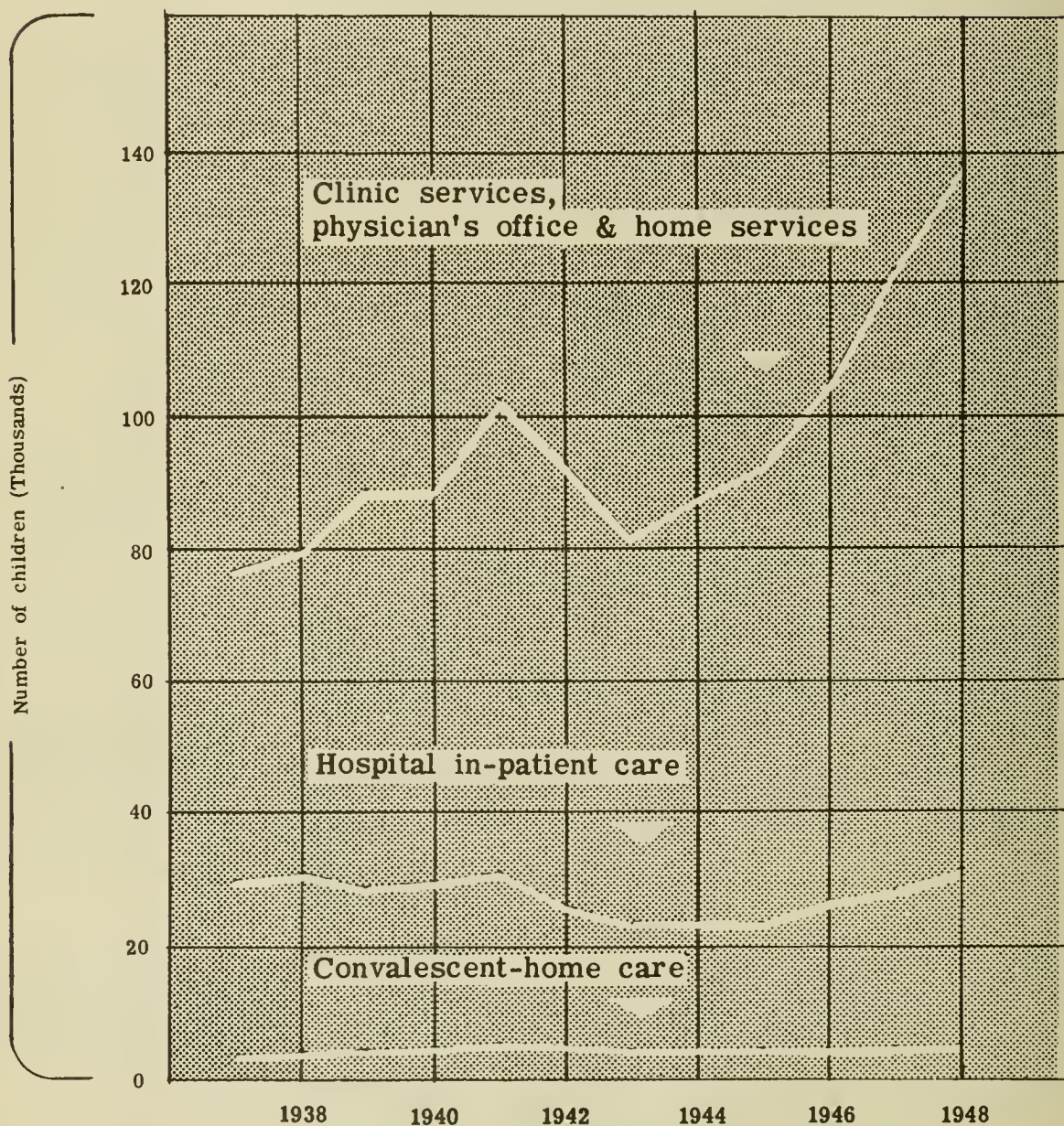
\* A total unduplicated count of children receiving services first became available in 1943.

\*\* Attached, along with succeeding tables, at end of report.

\*\*\* Partial reports for 1949 and 1950 show that this trend has continued.

## CRIPPLED CHILDREN'S CLINIC SERVICES ARE REACHING INCREASING NUMBERS OF CHILDREN IN NEED OF CARE

Hospital and convalescent-home care under the crippled children's programs have remained more constant



Children have been staying progressively shorter periods in the hospital in recent years. During the early years of the program, the average time spent in the hospital went up from 44 days to 53 days. Since 1943, however, the trend has been continuously downward, and in 1948 the average length of stay--42 days--was the shortest in the experience of the program.\*

The decline in length of hospitalization is due to a variety of causes. The development of treatment methods permitting earlier ambulation has of course contributed to this trend. The sharply increasing costs of hospital care have undoubtedly also been an important influence. As this major cost factor in the program has made itself felt, there has been an increasing emphasis on earlier discharge. This has been accompanied by an apparent trend toward providing treatment services increasingly on an out-patient basis, at clinics and doctors' offices. Availability of local health services, particularly public health nursing service, has frequently permitted earlier return of hospitalized children to their own homes with continuing health supervision. Improved diagnostic techniques and the extension of diagnostic clinic services to larger numbers of children have probably had the effect of earlier detection and diagnosis of diseases and disabilities, thus tending to reduce the extent and length of treatment, including surgical procedures and hospitalization.

The average convalescent-home stay during a year has fluctuated between 86 and 109 days. This average is apt to show considerable chance variation from year to year, since so small a number of children receive convalescent-home care. In 1948, the average of 97 days stood at about the midpoint of the experience for the 12-year period starting with 1937. Some of the same influences which have brought down the average length of hospitalization might be expected to have also reduced the length of convalescent-home care. The effects there are not revealed by the data, however, partly due to the offsetting influence of earlier transfers from the hospital to the convalescent home.

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\* Further declines are evidenced in partial reports for 1949 and 1950. Despite the downward trend in average length of stay, the total number of days of care provided under the program has gone up with the moderate increases, since 1945's low, in the number of children hospitalized (see Table 2).

## Regarding State Comparisons . . .

With each State developing and administering its program, there are of course many variations in the organization, content, and administration of the programs from State to State.

The Children's Bureau has defined, for purposes of a national reporting system, selected elements of service which are uniformly reportable. The types of services and the conditions under which they are reportable are those which have been found generally common to the State programs and applicable to most situations. What they may fail to reveal in a particular program or situation, they make up for by permitting an ordered portrayal of major services of the programs in composite.

Comparisons within this framework may be more harmful than helpful if State differences observed in the data are used as sole criteria for evaluations. State comparisons can and should be useful as points of departure for further exploration.

### THE STATE PROGRAMS REACH DIFFERENT PROPORTIONS OF THE CHILD POPULATION

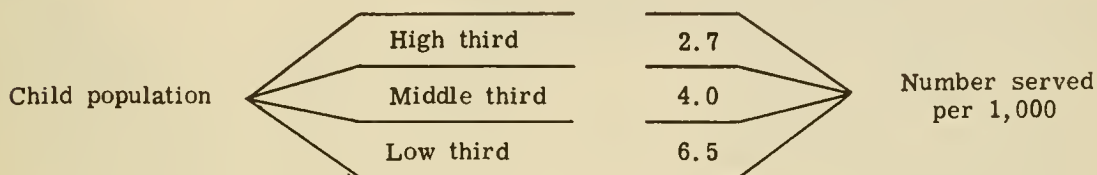
How many children receive services from a particular crippled children's agency depends on the need of children in that State for services, the availability of other resources, and the capacity and effectiveness of the program in reaching the children in need. The variations in the costs of care and the conditions treated in different States also affect the number of children served.

The extent of services received has been measured against the child population under 21 years of age. Thus an average of 3.3 children out of every thousand received services during 1948 for the country as a whole. Statewise (see Table 3) the rates ranged from

1.3 in Texas and 1.4 in New Jersey, to 12.5 in Nevada and 12.7 in the Virgin Islands.\*

Chart 3 gives a picture of the comparative rates over the country.

There is a distinct tendency for proportionately fewer children to receive services under the crippled children's program in the highly populated States than in the less populated. If the States are ranked in three groups according to the number of children under 21 years, the numbers served per thousand for the high, middle and low population groups stand in inverse order:

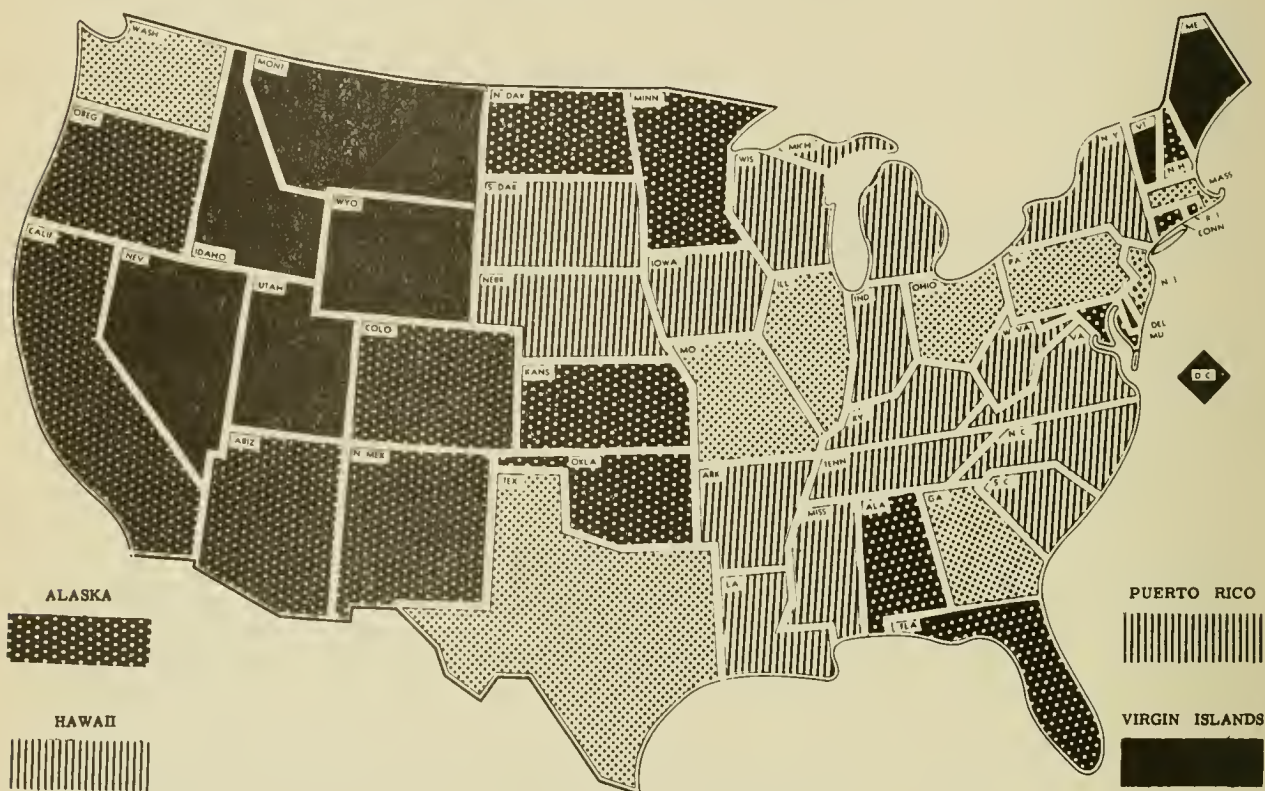


The inverse connection between size of population and proportion of children served by the programs is most likely due to the fact that many large cities are not covered by the State program for crippled children. Crippled children's services had been developed under local public auspices in many large cities before the development of the Federal-State program. It is in the large cities, too, that needs are more apt to be covered by services of voluntary organizations, hospital out-patient departments, and other organized resources besides the public programs. Examination of data for the largest cities of the country shows, in fact, that in almost every case a much smaller proportion of children in the city is served by the State program than is true for the State as a whole.

The effect of this is reflected in variations of State rates of service according to the proportion of the population living in cities of 50,000 or more. Among the twelve States where less than 10 percent of the population is found in these large cities, an average of 5 children per thousand were served by the State crippled children's program. The rate

\* Closely related to these rates based on all professional services are those based on "physician's services" (see Table 3). The latter is used to designate clinic service, physician's office and home services, hospital in-patient care, and convalescent-home care. The two series of rates show a rank order correlation of  $.97 \pm .14$ .

# THE MORE POPULOUS STATES' CRIPPLED CHILDREN'S SERVICES REACH SMALLER PROPORTIONS OF THE CHILD POPULATION



Number of children who received services per 1,000 population under 21 years: 1948

	6.5 & Over (10 States)
	4.5 - 6.4 (16 " )
	2.5 - 4.4 (18 " )
	Under 2.5 ( 9 " )

was only 3 per thousand among the ten States whose big-city population constituted more than 40 percent of the total.\*

This relationship is significant evidence of the carrying out of the program's intent, for the Social Security Act, in establishing the crippled children's grant-in-aid program, directed special attention to the extension and improvement of services in rural and needy areas. Thus the distribution of Federal funds to the States under the program is designed to favor the low-income and rural States.

#### EMPHASIS ON THE TYPES OF SERVICES VARIES FROM STATE TO STATE

As shown earlier, of the 155,000 children who received physician's services, the proportion receiving each of the types of services involved was as follows:

	percent
Clinic service	85
Hospital in-patient care	21
Convalescent-home care	3
Physician's office and home services	8

These are the national averages. Emphasis on the different types of services varied widely among the States (see Table 4). For example, one State (Arizona) furnished convalescent-home care to one-fourth of the children attended by doctors under the program, while as many as 13 States did not provide any convalescent-home care at all under their programs. Availability of convalescent-home facilities and the types of crippling conditions covered are probably the main factors behind variations in this type of care.

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\* These gross measures for the extremes alone should not be taken to imply that the relationship holds clearly throughout. For the country as a whole, the correlation (product-moment) between the State service rates and the proportion of the population in cities of 50,000 or more is  $-.33$ . While small, the correlation is statistically reliable at the 5 percent level of significance.

In Ohio and New Jersey, where many crippled children are seen at clinics which are not operated directly by the State crippled children's agency, clinic service under the program shows up relatively more lightly than in virtually every other State. In this regard, the least emphasis is shown in Texas, where relatively more use is made of physicians in their own offices. There half of all the children who received physician's services were so attended. The Texas program stands in contrast to 14 State programs which reported that none of their children were seen under their auspices by physicians outside of clinics, hospitals or convalescent homes.

The variations in relative emphases which can be observed in Table 4 are reflections of differences in content and organization of programs. These differences sometimes flow from different philosophies of program responsibility; sometimes from considerations of priority made necessary by limited resources, and by the nature of community resources otherwise available; and sometimes from community attitudes which shape the development of a program.

#### THE AMOUNT OF SERVICES CHILDREN GET VARIES IN THE DIFFERENT STATES

Differences among the programs in the amount of services which children receive (see Table 5) may reflect different operating conditions, along with the factors mentioned above. To take extremes: arrangements for getting snowbound Alaska's children into clinics are vastly different from those possible in the urban program of the District of Columbia. And so crippled children in Alaska are rarely seen at a clinic more than once a year, while in the District of Columbia those who came to clinics were seen on an average of 9 times during 1948. But why did New Mexico show only a single visit during the year for all but a handful of children? One reason is that clinic services provided by the program were supplemented by those of the Carrie Tingley Hospital. Whys and wherefores may be numerous, and Table 5 (in conjunction with Table 6) may be used as a starting point for inquiring into factors associated with large differences.

On the whole, frequency of clinic visits did not vary greatly among the States. Other than the District of Columbia and Puerto Rico, which reported, respectively, averages of

9 and 5 clinic visits per child receiving clinic service, the State averages were not dispersed far from the national average of 2.2 visits:

In this number of States	6	1.0	the averages clustered around this number of visits
	19	1.5	
	13	2.0	
	9	2.5	
	4	3.0	
	<u>51</u>		

The average amount of time spent in the hospital ranged among the States all the way from 10 days per child (Arizona), to 79 days (New York) and 211 days (Alaska). The latter was of course extremely atypical, largely due to transportation difficulties and the fact that a very large proportion are cases of tuberculosis of bones and joints requiring prolonged hospitalization. Excluding Alaska, and Delaware (where hospitalization is furnished through resources other than the State agency), the remaining States were distributed as follows according to the average number of days of care per hospitalized child:

Number of States	4	10-19.9	Days
	15	20-29.9	
	11	30-39.9	
	8	40-49.9	
	6	50-59.9	
	3	60-69.9	
	4	70-79.9	
	<u>51</u>		

The diverse types of crippling conditions accepted for care in the different State programs are of course influential in determining the length of hospitalization and would account for much of the variation. This also applies to the extent of care provided in convalescent homes.

Thirteen State programs did not provide convalescent-home care at all in 1948, and two additional States provided virtually none. In the remaining 38 States, the average stay per child in convalescent homes varied from 29 days (North Dakota) to as high as 263 days (Pennsylvania). The distribution in summary:

Number of States	3	Under 50	Days
	14	50- 99.9	
	11	100-149.9	
	7	150-199.9	
	2	200-249.9	
	1	250-299.9	
	<u>38</u>		

■ The data presented here tell something about the nature, extent and accomplishments of the State crippled children's programs. They reveal variations among the programs. Numerous circumstances may account for the variations and for apparent departures from the "usual," as some of the explanations in the discussion above have shown. The data sometimes reveal these explanations, sometimes raise questions and provide clues for further exploration. These program statistics, in either event, can serve as invaluable aids and guides to understanding the programs and to their administration.

TRENDS OF SERVICES RECEIVED UNDER THE CRIPPLED CHILDREN'S PROGRAM<sup>a</sup>  
1937-1948

Type of service	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
Total number of children who received service <sup>b</sup> ..	(c)	(c)	(c)	(c)	(c)	(c)	115,000	125,000	130,000	155,000	175,000	194,750,000
<u>Major types of service</u>												
<u>HOSPITAL IN-PATIENT CARE</u>												
Number of children.....	30,000	31,000	29,000	30,000	31,000	26,000	24,000	24,000	24,000	27,000	29,000	32,000
Number of days' care.....	1,323,000	1,398,000	1,376,000	1,465,000	1,493,000	1,348,000	1,263,000	1,225,000	1,221,000	1,250,000	1,289,000	1,335,000
Average number of days per child <sup>f</sup> .....	44.0	45.7	46.7	48.3	48.1	50.9	53.2	52.0	51.0	46.2	45.1	41.5
<u>CONVALESCENT HOME CARE</u>												
Number of children.....	3,900	4,300	4,800	4,900	5,300	5,000	4,600	4,200	4,300	4,400	4,900	5,000
Number of days' care.....	380,000	372,000	410,000	443,000	502,000	517,000	463,000	448,000	464,000	445,000	479,000	484,000
Average number of days per child <sup>f</sup> .....	97.3	85.8	86.2	89.6	94.1	103.8	99.7	107.0	108.7	100.5	98.3	97.1
<u>CLINIC SERVICE AND PHYSICIAN'S OFFICE AND HOME SERVICES</u>												
Combined counts:												
Number of children.....	77,000	80,000	89,000	89,000	103,000	93,000	82,000	88,000	92,000	105,000	122,000	138,000
Number of visits <sup>g</sup> .....	193,000	181,000	196,000	198,000	221,000	201,000	183,000	184,000	200,000	240,000	285,000	322,000
Average number of visits per child <sup>f</sup> .....	2.5	2.3	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.3	2.3	2.3
Individual counts:												
Clinic visits.....	(c)	162,000	176,000	166,000	189,000	178,000	164,000	171,000	176,000	205,000	245,000	284,000
Physician's office and home visits.....	(c)	19,000	21,000	31,000	32,000	22,000	19,000	13,000	23,000	35,000	40,000	39,000

<sup>a</sup> Includes, up to 1948, services administered or financed in whole or in part by official State agencies under the Social Security Act, Title V, Part 2; for 1948, includes only services provided or purchased by the official State agencies exclusive of pre-diagnostic services. Data for 1937 are for US States, District of Columbia, Alaska, Hawaii (Georgia, Louisiana, Oregon not participating); for 1938, Georgia and Oregon also included, and for 1939, Louisiana as well (except for first quarter). Puerto Rico included beginning the last half of 1940, and Virgin Islands beginning the last half of 1947.

<sup>b</sup> Not available.

<sup>c</sup> Changes in definitions of coverage beginning with 1948 narrowed the basis for this count (see footnote e). Corresponding figure comparable to those of prior years estimated as 195,000.

<sup>d</sup> Estimated on basis of data reported on total admissions (including readmissions).

<sup>e</sup> Based on unrounded figures.

<sup>f</sup> Not always the sum of figures given below for clinic visits and other physician visits because of independent rounding.

<sup>g</sup> Estimated as unduplicated number of children who received clinic service and/or physician's office and home services.

PROPORTION OF CHILD POPULATION WHO RECEIVED SERVICES  
UNDER THE CRIPPLED CHILDREN'S PROGRAM IN 1948,<sup>a</sup> BY STATE

State	Number of children under 21 years <sup>b</sup>	Children who received any professional services <sup>a</sup>		Children who received physician's services <sup>c</sup>	
		Number	Rate per 1,000 child population	Number	Rate per 1,000 child population
United States.....	53,200,000	174,963	3.3	155,239	2.9
Alabama.....	1,274,000	7,367	5.8	6,699	5.3
Alaska.....	49,000	259	5.3	259	5.3
Arizona.....	280,000	1,515	5.4	1,515	5.4
Arkansas.....	823,000	3,071	3.7	2,968	3.6
California.....	3,180,000	15,344	4.8	15,344	4.8
Colorado.....	429,000	2,675	6.2	1,713	4.0
Connecticut.....	632,000	2,848	4.5	2,612	4.1
Delaware.....	101,000	764	7.6	764	7.6
District of Columbia....	261,000	2,184	8.4	2,184	8.4
Florida.....	855,000	4,807	5.6	4,807	5.6
Georgia.....	1,343,000	2,894	2.2	2,812	2.1
Hawaii.....	226,000	591	2.6	591	2.6
Idaho.....	212,000	1,665	7.9	1,665	7.9
Illinois.....	2,726,000	6,382	2.3	6,048	2.2
Indiana.....	1,350,000	3,439	2.5	3,439	2.5
Iowa.....	907,000	2,919	3.2	2,919	3.2
Kansas.....	659,000	3,735	5.7	2,501	3.8
Kentucky.....	1,174,000	4,358	3.7	3,971	3.4
Louisiana.....	1,070,000	4,308	4.0	4,054	3.8
Maine.....	329,000	2,368	7.2	1,579	4.8
Maryland.....	755,000	3,914	5.2	3,792	5.0
Massachusetts.....	1,477,000	2,204	1.5	2,047	1.4
Michigan.....	2,208,000	8,192	3.7	6,130	2.8
Minnesota.....	1,032,000	5,717	5.5	3,439	3.3
Mississippi.....	956,000	3,023	3.2	3,023	3.2
Missouri.....	1,322,000	2,152	1.6	1,934	1.5
Montana.....	189,000	1,451	7.7	1,451	7.7
Nebraska.....	450,000	1,926	4.3	1,926	4.3
Nevada.....	51,000	638	12.5	638	12.5
New Hampshire.....	181,000	1,161	6.4	1,154	6.4
New Jersey.....	1,436,000	2,074	1.4	1,371	1.0
New Mexico.....	266,000	1,297	4.9	1,167	4.4
New York.....	4,322,000	11,693	2.7	8,524	2.0
North Carolina.....	1,626,000	5,364	3.3	5,364	3.3
North Dakota.....	228,000	1,345	5.9	1,308	5.7
Ohio.....	2,600,000	4,101	1.6	2,286	0.9
Oklahoma.....	913,000	4,216	4.6	3,173	3.5
Oregon.....	516,000	2,621	5.1	2,621	5.1
Pennsylvania.....	3,565,000	6,112	1.7	5,267	1.5
Puerto Rico.....	1,173,000	2,897	2.5	2,897	2.5
Rhode Island.....	239,000	1,520	6.4	1,094	4.6
South Carolina.....	931,000	2,822	3.0	2,822	3.0
South Dakota.....	233,000	571	2.5	571	2.5
Tennessee.....	1,299,000	3,471	2.7	3,471	2.7
Texas.....	2,842,000	3,778	1.3	3,748	1.3
Utah.....	283,000	2,222	7.9	2,179	7.7
Vermont.....	136,000	1,421	10.4	1,192	8.8
Virgin Islands.....	12,000	152	12.7	152	12.7
Virginia.....	1,203,000	4,363	3.6	4,363	3.6
Washington.....	804,000	1,565	1.9	1,402	1.7
West Virginia.....	811,000	2,153	2.7	2,076	2.6
Wisconsin.....	1,160,000	4,640	4.0	3,697	3.2
Wyoming.....	101,000	694	6.9	516	5.1

<sup>a</sup> Services provided or purchased by official State agencies under the Social Security Act, Title V, Part 2.

<sup>b</sup> Bureau of the Census, Population Estimates, Series P-25, No. 15, October 10, 1948. Estimates for territories are based on proportion of total population under 21 years in 1940 applied to total civilian population in 1948 (1950 for Alaska).

<sup>c</sup> Includes clinic service, physician's office and home services, hospital in-patient care, and convalescent-home care.

RELATIVE EMPHASES ON MAJOR TYPES OF SERVICES UNDER THE  
CRIPPLED CHILDREN'S PROGRAM IN 1948,<sup>a</sup> BY STATE

State	Total number of children who received physician's services	Percent of total who received specific type of service			
		Clinic service	Physician's office and home services	Hospital in- patient care	Convalescent- home care
United States.....	155,239	84.7	8.0	20.7	3.2
Alabama.....	6,699	96.9	3.7	15.6	8.0
Alaska.....	259	49.8	12.4	45.9	3.9
Arizona.....	1,515	100.0	0	18.6	24.6
Arkansas.....	2,968	93.5	6.7	30.4	8.3
California.....	15,344	65.0	20.5	17.0	.7
Colorado.....	1,713	74.6	25.2	19.0	4.0
Connecticut.....	2,612	89.1	9.2	7.6	2.8
Delaware.....	764	100.0	0	0	0
District of Columbia.....	2,184	85.7	0	22.4	0
Florida.....	4,807	86.1	0	18.7	11.8
Georgia.....	2,812	94.6	5.1	21.2	8.6
Hawaii.....	591	75.6	13.9	24.0	.2
Idaho.....	1,665	97.2	5.6	9.5	.9
Illinois.....	6,048	86.3	10.5	19.1	1.0
Indiana.....	3,439	96.5	0	24.9	0
Iowa.....	2,919	80.7	0	32.5	2.1
Kansas.....	2,501	90.2	0	37.7	0
Kentucky.....	3,971	74.2	28.3	23.3	.2
Louisiana.....	4,054	98.2	3.6	8.0	0
Maine.....	1,579	95.0	9.6	17.7	2.2
Maryland.....	3,792	91.1	.6	15.6	.9
Massachusetts.....	2,047	96.0	8.5	10.7	1.0
Michigan.....	6,130	94.8	0	18.2	7.4
Minnesota.....	3,439	91.1	4.6	23.6	0
Mississippi.....	3,023	93.0	7.4	19.3	3.0
Missouri.....	1,934	95.6	0	25.9	5.4
Montana.....	1,451	87.9	13.9	9.0	0
Nebraska.....	1,926	86.7	0	28.5	.5
Nevada.....	638	83.8	12.1	12.2	1.7
New Hampshire.....	1,154	90.6	.7	10.3	.1
New Jersey.....	1,371	60.9	0	39.6	8.0
New Mexico.....	1,167	78.7	9.8	23.0	0
New York.....	8,524	76.5	3.6	26.5	6.2
North Carolina.....	5,364	85.0	.4	25.9	1.7
North Dakota.....	1,308	72.2	29.8	26.1	1.3
Ohio.....	2,286	46.7	11.7	60.5	9.0
Oklahoma.....	3,173	93.8	0	30.6	4.3
Oregon.....	2,621	77.9	22.3	7.6	0
Pennsylvania.....	5,267	86.3	.6	12.3	1.2
Puerto Rico.....	2,897	95.0	6.9	22.6	5.5
Rhode Island.....	1,094	88.6	8.8	15.2	6.3
South Carolina.....	2,822	97.4	5.6	19.0	2.8
South Dakota.....	571	69.7	19.3	23.6	0
Tennessee.....	3,471	86.7	1.0	20.0	2.7
Texas.....	3,748	40.1	55.6	40.1	.5
Utah.....	2,179	85.8	6.2	13.8	1.4
Vermont.....	1,192	95.9	3.4	11.1	1.2
Virgin Islands.....	152	100.0	0	10.5	0
Virginia.....	4,363	100.0	0	16.1	1.3
Washington.....	1,402	82.1	15.7	14.5	0
West Virginia.....	2,076	96.7	1.5	28.1	5.2
Wisconsin.....	3,697	92.5	1.7	14.2	1.5
Wyoming.....	516	84.7	12.8	13.5	0

<sup>a</sup> Services provided or purchased by official State agencies under the Social Security Act, Title V, Part 2.

AMOUNT OF MAJOR TYPES OF SERVICES PER CHILD UNDER  
THE CRIPPLED CHILDREN'S PROGRAM IN 1948,<sup>a</sup> BY STATE

State	Average number of visits per child		Average number of days' care per child	
	Clinic service	Physician's office and home services	Hospital in-patient care	Convalescent-home care
United States.....	2.2	3.1	41.5	97.1
Alabama.....	2.4	1.1	29.6	44.0
Alaska.....	1.0	1.0	210.7	130.1
Arizona.....	3.0	---	10.1	79.0
Arkansas.....	1.5	1.2	25.2	62.0
California.....	1.7	5.6	21.5	75.1
Colorado.....	1.9	2.0	25.4	72.5
Connecticut.....	2.0	1.5	49.6	119.7
Delaware.....	1.9	---	---	---
District of Columbia.....	8.7	---	52.9	---
Florida.....	2.0	---	28.7	59.6
Georgia.....	2.2	1.0	43.6	67.9
Hawaii.....	2.0	2.4	41.2	<sup>b</sup> (10.0)
Idaho.....	1.9	2.1	33.9	68.6
Illinois.....	1.4	3.3	44.3	171.3
Indiana.....	2.9	---	38.0	---
Iowa.....	1.4	---	22.5	105.9
Kansas.....	3.2	---	25.5	---
Kentucky.....	1.7	1.1	63.8	175.7
Louisiana.....	2.2	2.5	31.3	---
Maine.....	1.5	2.1	47.2	159.3
Maryland.....	1.6	2.3	70.4	181.5
Massachusetts.....	2.0	13.3	73.3	98.8
Michigan.....	3.0	---	27.3	80.3
Minnesota.....	1.5	2.1	75.4	---
Mississippi.....	2.4	2.8	32.2	88.2
Missouri.....	2.6	---	51.0	122.8
Montana.....	1.3	2.2	54.2	---
Nebraska.....	2.0	---	13.5	134.9
Nevada.....	1.3	1.3	17.5	49.9
New Hampshire.....	2.2	1.8	21.6	<sup>b</sup> (16.0)
New Jersey.....	1.9	---	30.9	126.6
New Mexico.....	1.0	3.2	37.6	---
New York.....	1.9	1.7	78.8	149.4
North Carolina.....	2.4	4.1	53.3	59.9
North Dakota.....	1.0	2.3	29.7	29.5
Ohio.....	1.4	1.7	35.3	108.6
Oklahoma.....	2.6	---	33.5	113.7
Oregon.....	1.2	2.3	26.7	---
Pennsylvania.....	1.4	2.9	42.9	263.2
Puerto Rico.....	5.2	1.1	55.1	202.2
Rhode Island.....	1.6	1.8	27.2	162.1
South Carolina.....	2.7	1.4	31.9	98.0
South Dakota.....	1.1	2.9	61.2	---
Tennessee.....	2.7	3.6	66.9	137.7
Texas.....	2.5	2.4	28.9	160.9
Utah.....	1.7	1.5	24.6	88.4
Vermont.....	1.6	2.3	22.7	203.2
Virgin Islands.....	1.7	---	39.8	---
Virginia.....	1.7	---	46.9	169.6
Washington.....	1.6	2.0	41.1	---
West Virginia.....	2.4	1.3	53.6	67.4
Wisconsin.....	1.4	2.3	39.8	120.8
Wyoming.....	1.1	2.2	15.7	---

<sup>a</sup> Services provided or purchased by official State agencies under the Social Security Act, Title V, Part 2.

The averages are figured over the number of children who received the specified type of service (see Table 6).

<sup>b</sup> Represents only one child who received convalescent-home care.

Table 6

NUMBER OF CHILDREN WHO RECEIVED MAJOR TYPES OF SERVICES  
UNDER THE CRIPPLED CHILDREN'S PROGRAM IN 1948,<sup>a</sup> BY STATE

State	Number of children who received--			
	Clinic service	Physician's office and home services	Hospital in-patient care	Convalescent-home care
United States.....	131,451	12,493	32,134	4,983
Alabama.....	6,493	250	1,046	533
Alaska.....	129	32	119	10
Arizona.....	1,515	0	282	372
Arkansas.....	2,775	200	903	261
California.....	9,969	3,140	2,612	114
Colorado.....	1,278	431	326*	69
Connecticut.....	2,328	241	198	73
Delaware.....	764	0	0	0
District of Columbia.....	1,872	0	489	0
Florida.....	4,137	0	900	568
Georgia.....	2,660	144	596	243
Hawaii.....	447	82	142	1
Idaho.....	1,619	94	158	15
Illinois.....	5,220	636	1,157	58
Indiana.....	3,319	0	855	0
Iowa.....	2,357	0	948	62
Kansas.....	2,255	0	944	0
Kentucky.....	2,947	1,124	927	10
Louisiana.....	3,982	148	324	0
Maine.....	1,500	152	279	34
Maryland.....	3,454	23	591	33
Massachusetts.....	1,965	175	220	20
Michigan.....	5,813	0	1,115	452
Minnesota.....	3,134	158	811	0
Mississippi.....	2,810	224	584	92
Missouri.....	1,849	0	501	104
Montana.....	1,275	202	131	0
Nebraska.....	1,670	0	549	10
Nevada.....	535	77	78	11
New Hampshire.....	1,046	8	119	1
New Jersey.....	835	0	543	110
New Mexico.....	918	114	269	0
New York.....	6,518	307	2,261	525
North Carolina.....	4,562	19	1,389	92
North Dakota.....	945	390	342	17
Ohio.....	1,068	268	1,384	207
Oklahoma.....	2,975	0	972	138
Oregon.....	2,042	584	200	0
Pennsylvania.....	4,547	30	646	62
Puerto Rico.....	2,753	201	655	159
Rhode Island.....	969	96	166	69
South Carolina.....	2,750	157	537	80
South Dakota.....	398	110	135	0
Tennessee.....	3,009	34	693	95
Texas.....	1,502	2,085	1,503	18
Utah.....	1,870	136	301	31
Vermont.....	1,143	40	132	15
Virgin Islands.....	152	0	16	0
Virginia.....	4,363	0	704	55
Washington.....	1,151	220	203	0
West Virginia.....	2,007	32	584	109
Wisconsin.....	3,420	63	526	55
Wyoming.....	437	66	69	0

<sup>a</sup> Services provided or purchased by official State agencies under the Social Security Act, Title V, Part 2.

## CHILDREN'S BUREAU STATISTICAL SERIES

Bulletins in this series present analyses of periodic data useful to research, administrative, and informational specialists in the field of services for children. In these bulletins from time to time will appear data on the operations of public health and welfare programs, statistics on conditions of child life, and related source materials. Copies are available without charge. If you would like to receive future issues in this series, please send to the Children's Bureau a request that your name be placed on this mailing list.

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CHILDREN'S BUREAU  
STATISTICAL SERIES

NUMBER **11**

**THE CRIPPLED  
CHILDREN'S  
PROGRAM**

*.....who are the children served ?*

1 . SUPERINTENDENT OF DOCUMENTS

1573

This bulletin is based on statistical reports provided to the Children's Bureau by the 53 official State agencies administering the crippled children's programs under the Social Security Act, including the 48 States, the District of Columbia, Alaska, Hawaii, Puerto Rico and the Virgin Islands. Some of the charts and tables cover the continental United States only, since data on details of age and other characteristics are not available for 1948 for the child population of the Territories.

# THE CRIPPLED CHILDREN'S PROGRAM

*.....who are the children served ?*

*by Jerry Solon and Lillian R. Freedman*

Number 10 of this  
Statistical Series—  
One in Three Hundred:  
Children Served by the  
Crippled Children's  
Program in 1948—

was addressed to  
the question . . . . .

*What Does the Program Do?*

The present bulletin  
is concerned with . . . .

*Who Are the Children Served?*

We know that in 1948, 1 child in 300 received diagnostic or treatment services under the State crippled children's programs. This is perhaps a better way of saying that 175,000 children received these services—better because each child is different and comes with a unique problem. With his particular personal characteristics, he needs and receives individual medical attention.

What are the different crippling conditions

and personal characteristics found among these children? How old are they, how many boys and how many girls? What is their race or color? Where do they come from—city or country? How many are new to the program and how many have been receiving care over a longer period?

This series of charts provides some answers to questions such as these by giving a picture of the kinds of children served by the program in 1948.

# SCHOOL-AGE CHILDREN PREDOMINATE IN THE CRIPPLED CHILDREN'S PROGRAM . . .

Both in proportion of children served . . .

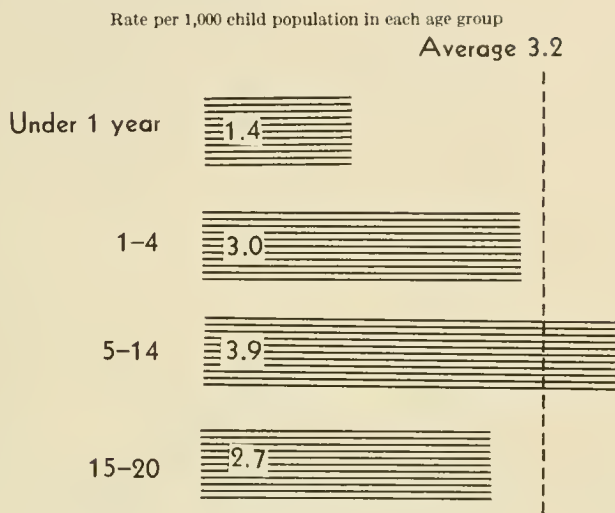


(Data for 53 States)

Of the 175,000 children who received services under the 53 State and Territorial programs in 1948, more than half were between 5 and 14 years old, and only 5,000 were under 1 year:

Total	174,963
Under 1-----	5, 382
1-4-----	38, 872
5-14-----	93, 967
15-20-----	35, 236
Age unknown---	1, 506

. . . and in relation to the child population

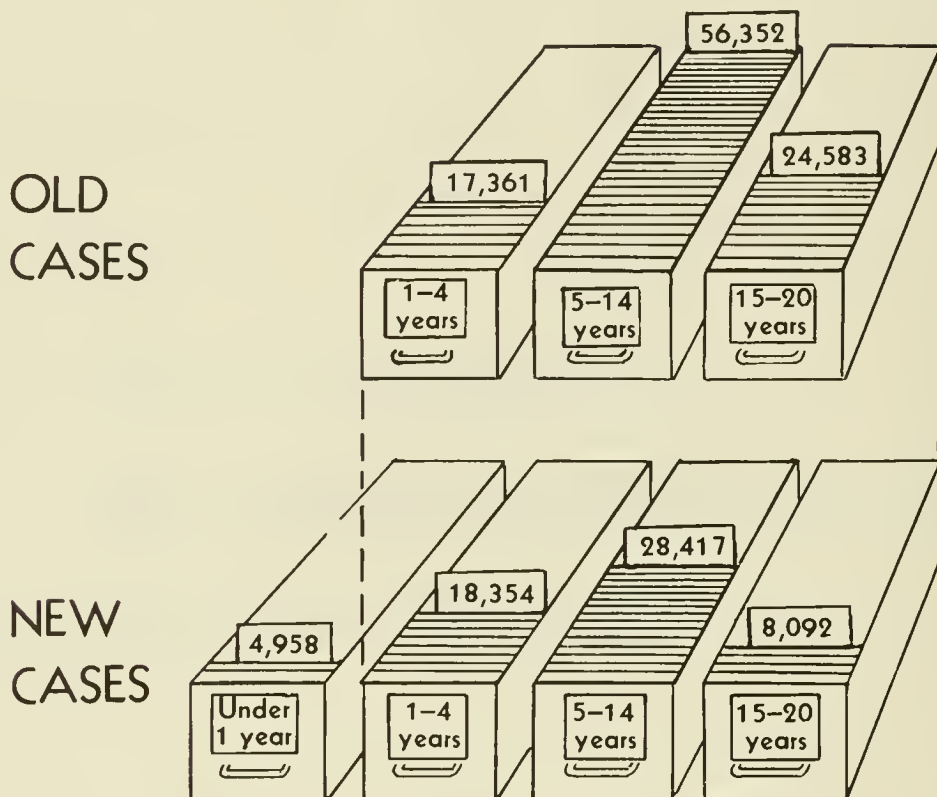


(Continental U. S.)

The 5-14 year olds were the only age group who shared in the services of the program at a higher rate than would be expected from the distribution of the child population:

Age in years	Percentage distribution	
	Children who received services	Total child population
Total	100.0	100.0
Under 1	3.1	6.8
1-4	22.2	23.5
5-14	54.3	45.2
15-20	20.4	24.5

CHILDREN RECEIVING THEIR INITIAL SERVICES UNDER THE PROGRAM  
ARE GENERALLY YOUNGER THAN CHILDREN WHO HAVE BEEN  
UNDER CARE IN PRIOR YEARS . . .



BUT EVEN SO, MANY CHILDREN FIRST COME UNDER THE PROGRAM  
DURING THE SCHOOL-AGE PERIOD

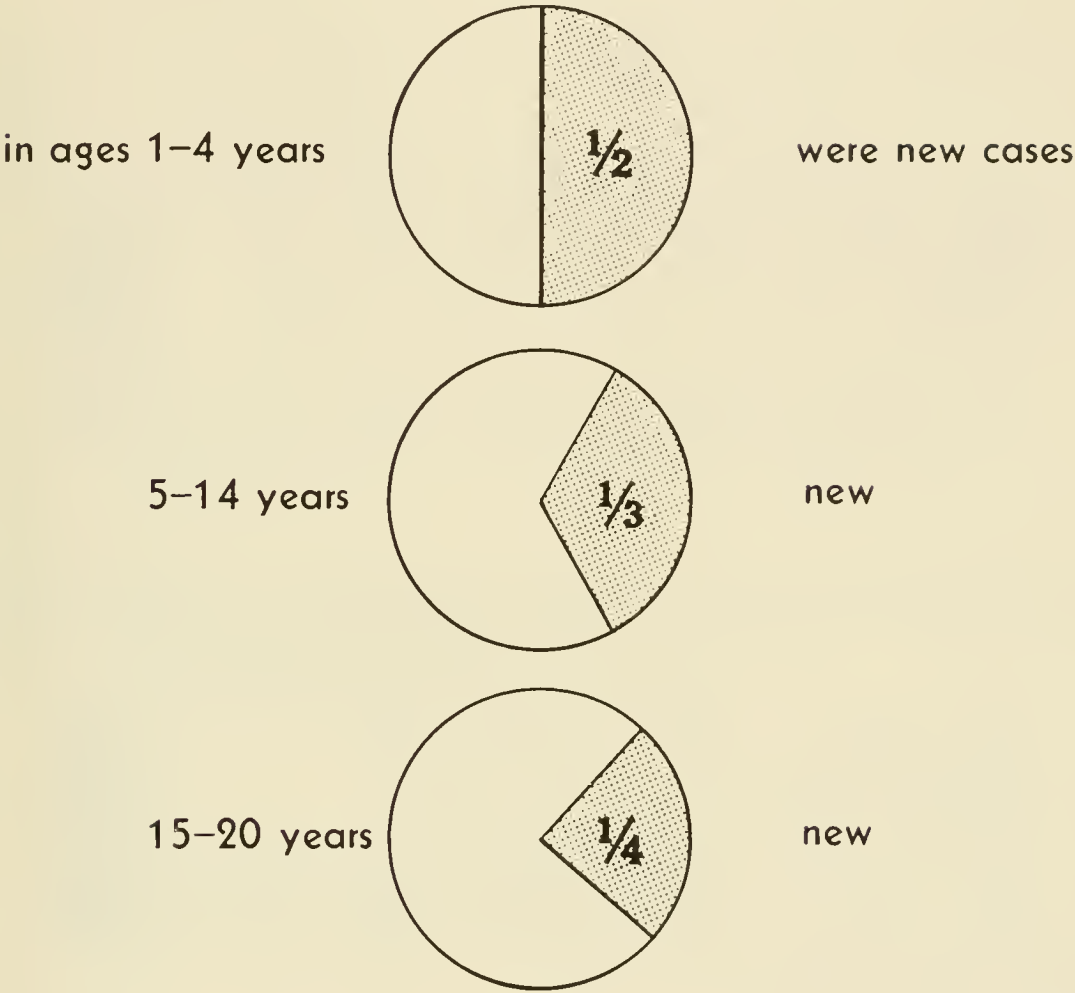
(Data for 51 States)

Viewed percentagewise, children receiving services for the first time in 1948 were concentrated in the younger ages more than the children who had been receiving services over a longer period . . .

Age group	Old cases	New cases
Total number -----	98,607	60,441
Total percent <sup>a</sup> -----	100.0	100.0
Under 1 -----	( <sup>b</sup> )	8.3
1-4 -----	17.7	30.7
5-14 -----	57.3	47.5
15-20 -----	25.0	13.5

<sup>a</sup> Excluding 311 old cases and 620 new cases for whom age was not reported.  
<sup>b</sup> By definition, children under 1 are new cases.

MANY CHILDREN RECEIVING SERVICES HAVE CONDITIONS WHICH CAN BE TREATED AT AN EARLY AGE . . .



(Data for 51 States)

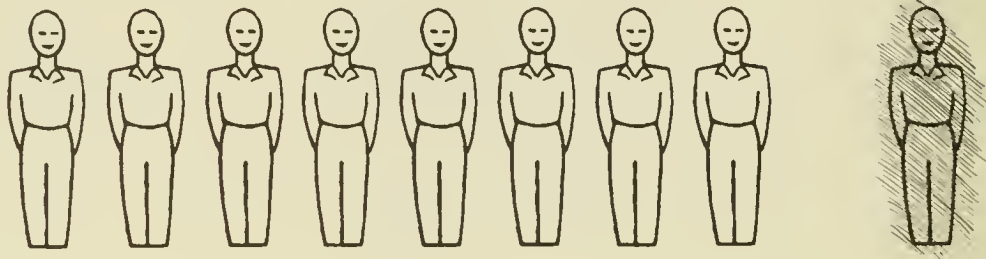
Taking the total group, two out of every five children who received services were new cases. The proportion of children in each age group who were new cases decreased as age increased.

Age in years	Percentage distribution		
	Total	New cases	Old cases
Total-----	100. 0	38. 0	62. 0
Under 1-----	100. 0	100. 0	(*)
1-4-----	100. 0	51. 4	48. 6
5-14-----	100. 0	33. 5	66. 5
15-20-----	100. 0	24. 8	75. 2

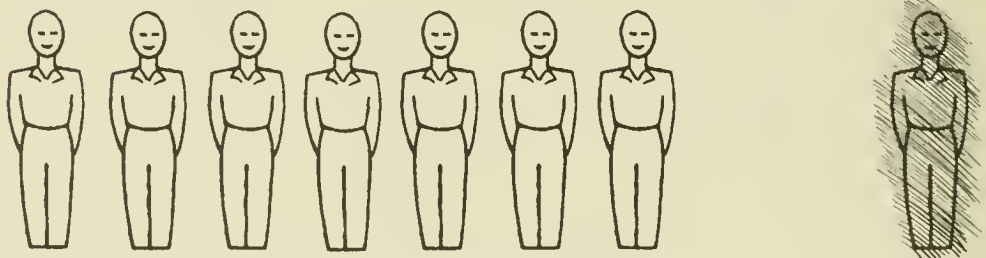
\* By definition, children under 1 are new cases.

COMPARED WITH WHITE CHILDREN, NEGRO AND OTHER CHILDREN  
RECEIVED SERVICES AT A SOMEWHAT LOWER RATE

1 OUT OF 9 WAS NONWHITE AMONG ALL CHILDREN RECEIVING SERVICE



1 OUT OF 8 WAS NONWHITE AMONG THE TOTAL CHILD POPULATION



(Continental U. S.; service data for 46 States)

There were relatively more nonwhite children among those who received services for the first time in 1948 than among old cases. For 45 States in the continental United States for which the data are available, the proportions are as follows:

	Total	Old cases	New cases
White.....	88.6	89.7	86.5
Nonwhite.....	11.4	10.3	13.5

The percentage of nonwhite children among the new cases corresponds to their proportion (12.9 percent) in the total child population.

# NONWHITE CHILDREN ARE REPRESENTED MORE AMONG THE YOUNGER AGE GROUPS RECEIVING SERVICES

Out of every 100 children receiving services in each age group, the following number of children were nonwhite:

Under 1 year



1-4



5-14



15-20



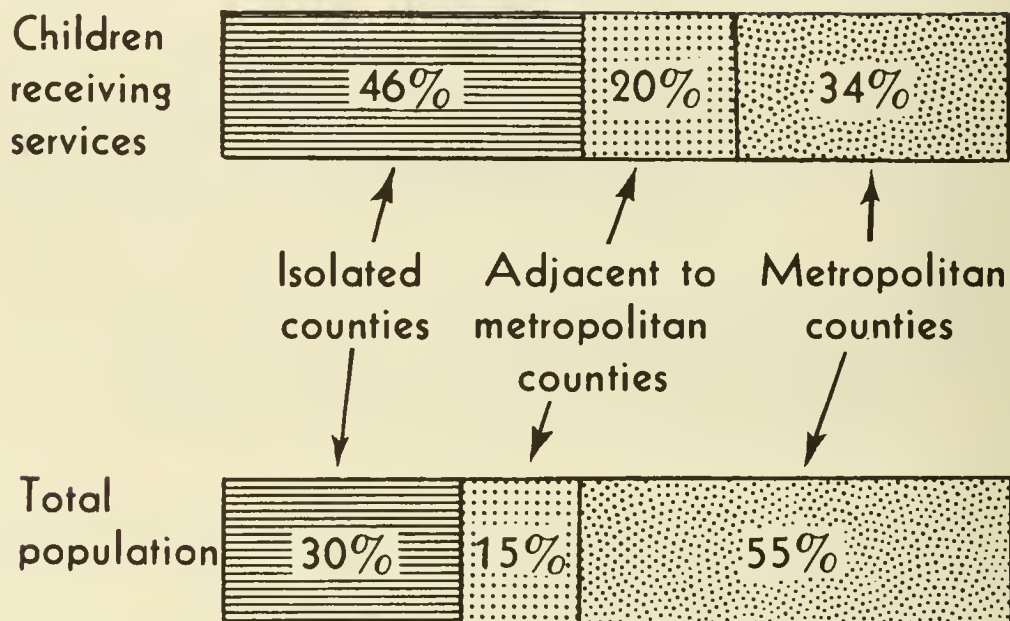
(Data for 49 States)

Within each age group there were relatively more nonwhite children among new cases than old (this information available for 48 States).

Age group	Percentage nonwhite of total	
	Old cases	New cases
Under 1.....	(*)	18.6
1-4.....	14.2	15.4
5-14.....	9.8	12.3
15-20.....	10.4	13.9

\* By definition, children under 1 are new cases.

# THE CRIPPLED CHILDREN'S PROGRAM REACHES RELATIVELY MORE CHILDREN IN RURAL AREAS



*Metropolitan counties are those including metropolitan districts of cities of 50,000 or more persons.*

(Continental U. S. )

The Social Security Act directs special attention to the extension and improvement of services for crippled children in rural areas and in areas of economic need. The emphasis on rural areas is reflected in the proportionately greater numbers of children who receive services in predominantly rural areas. Translating the comparison into a ratio of children receiving services to 10,000 of the general population, the metropolitan counties showed a ratio of 7, in contrast to a ratio of 18 in the isolated counties.

The comparison against total population is made in the absence of recent data on county distribution of the child population. Population estimates are from the Scripps Foundation for Research in Population Problems.

CHILDREN IN PRACTICALLY EVERY COUNTY  
OF THE UNITED STATES RECEIVED SERVICES

*Only 1 county in 100 had no children served by the program.*

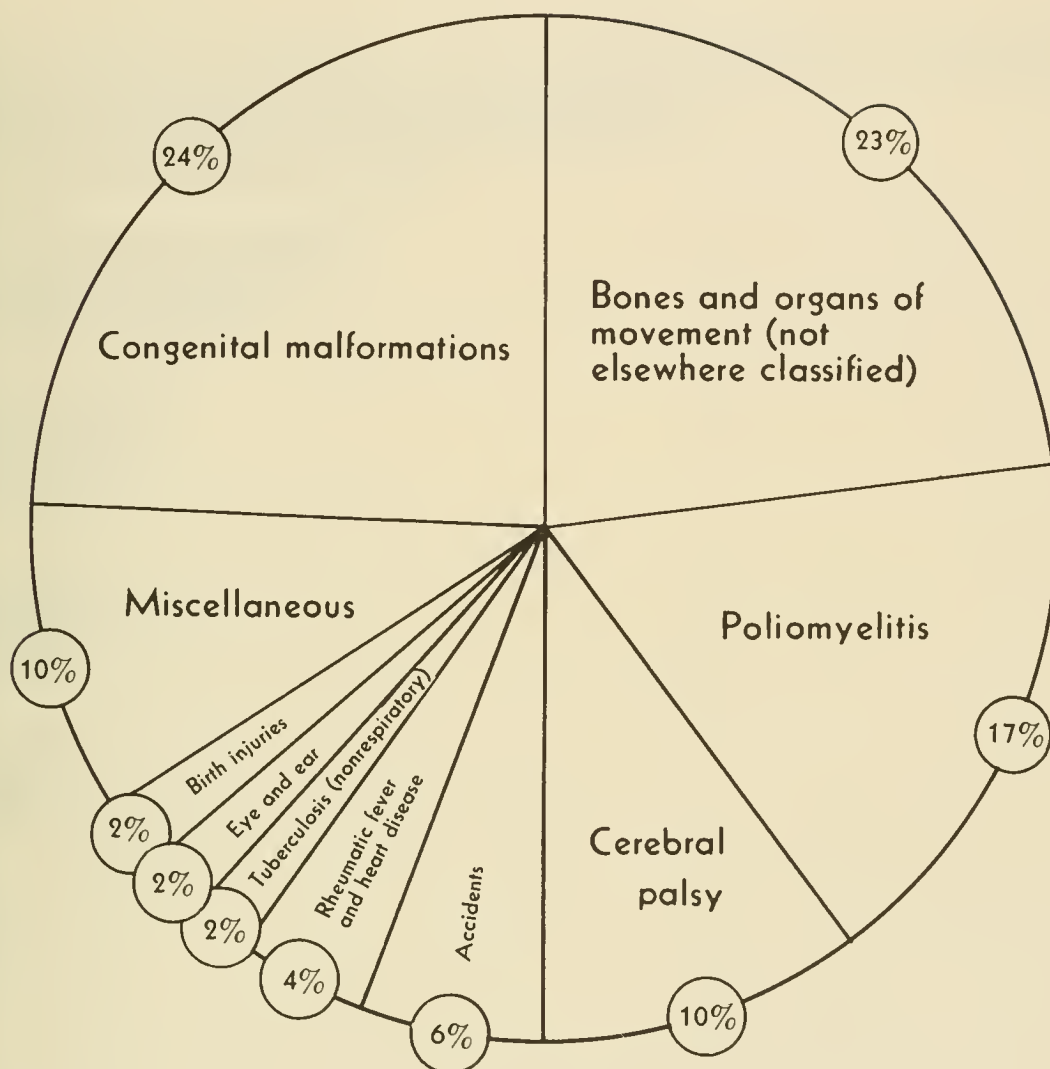


(Continental U. S.)

In only 45 sparsely settled counties, of the 3,073 in the continental United States, did no children at all receive services under the program in 1948. Only one-tenth of 1 percent of the country's population live in these counties. Almost all of them (38 of the 45) were at the farthest end of the road—entirely rural and isolated from any urban center.

NOTE.—This chart and the following ones covering the diagnostic distribution of children under the program are based on children who received physician's treatment at clinics, hospitals, or convalescent homes, or through home or office visits. The preceding charts are based on all children receiving service, either diagnostic or treatment.

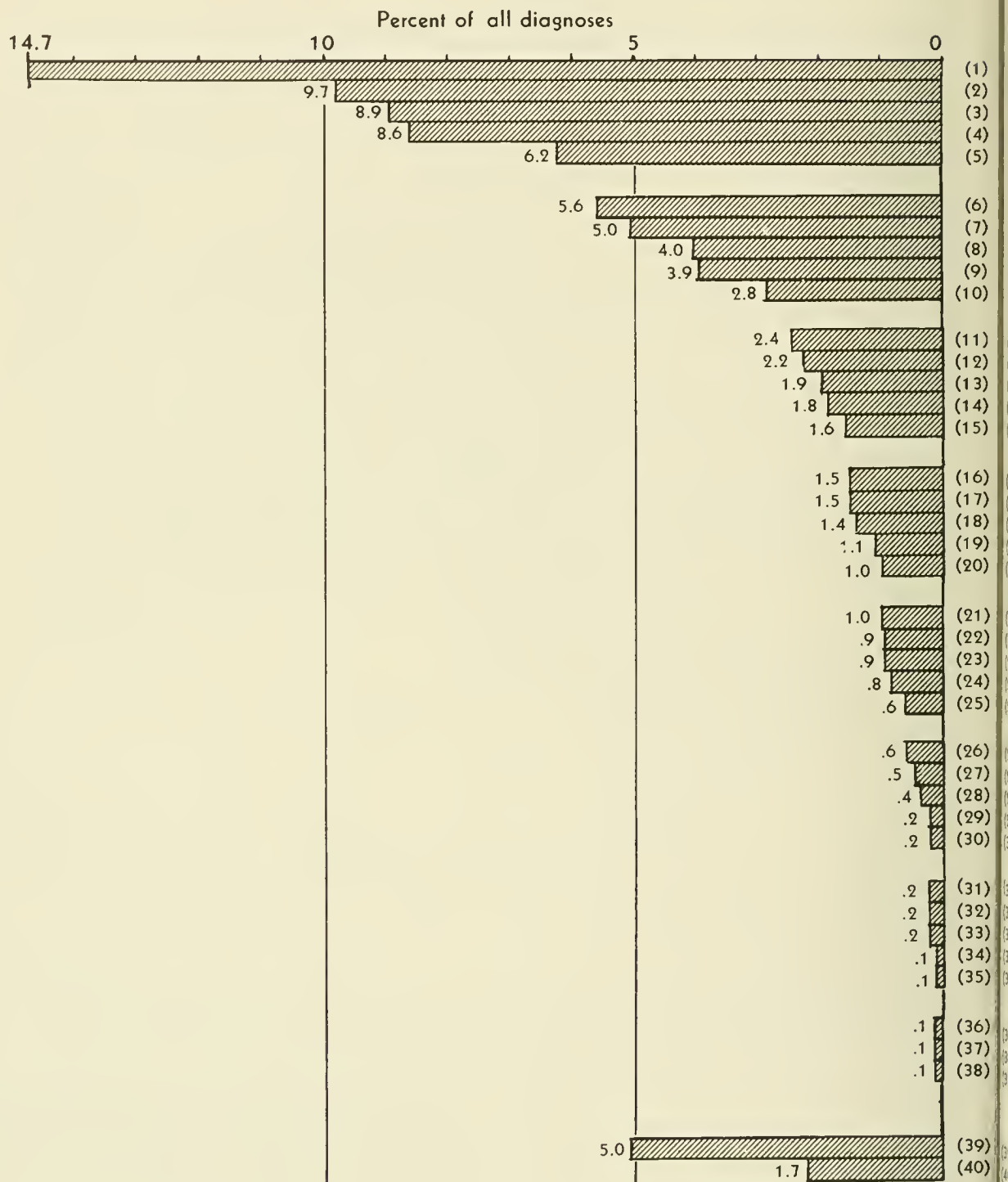
A LARGE VARIETY OF CRIPPLING CONDITIONS  
ARE COVERED UNDER THE PROGRAM



(Data for 39 States)

During the early years of the program care was almost entirely limited to orthopedic and plastic conditions. A much wider range of crippling conditions is now receiving attention. Care is gradually being extended to such handicapping conditions as rheumatic fever, congenital heart disease, hearing defects, cerebral palsy, epilepsy . . .

THESE ARE THE CRIPPLING CONDITIONS—IN ORDER OF FREQUENCY —  
 AMONG CHILDREN WHO RECEIVED TREATMENT SERVICES

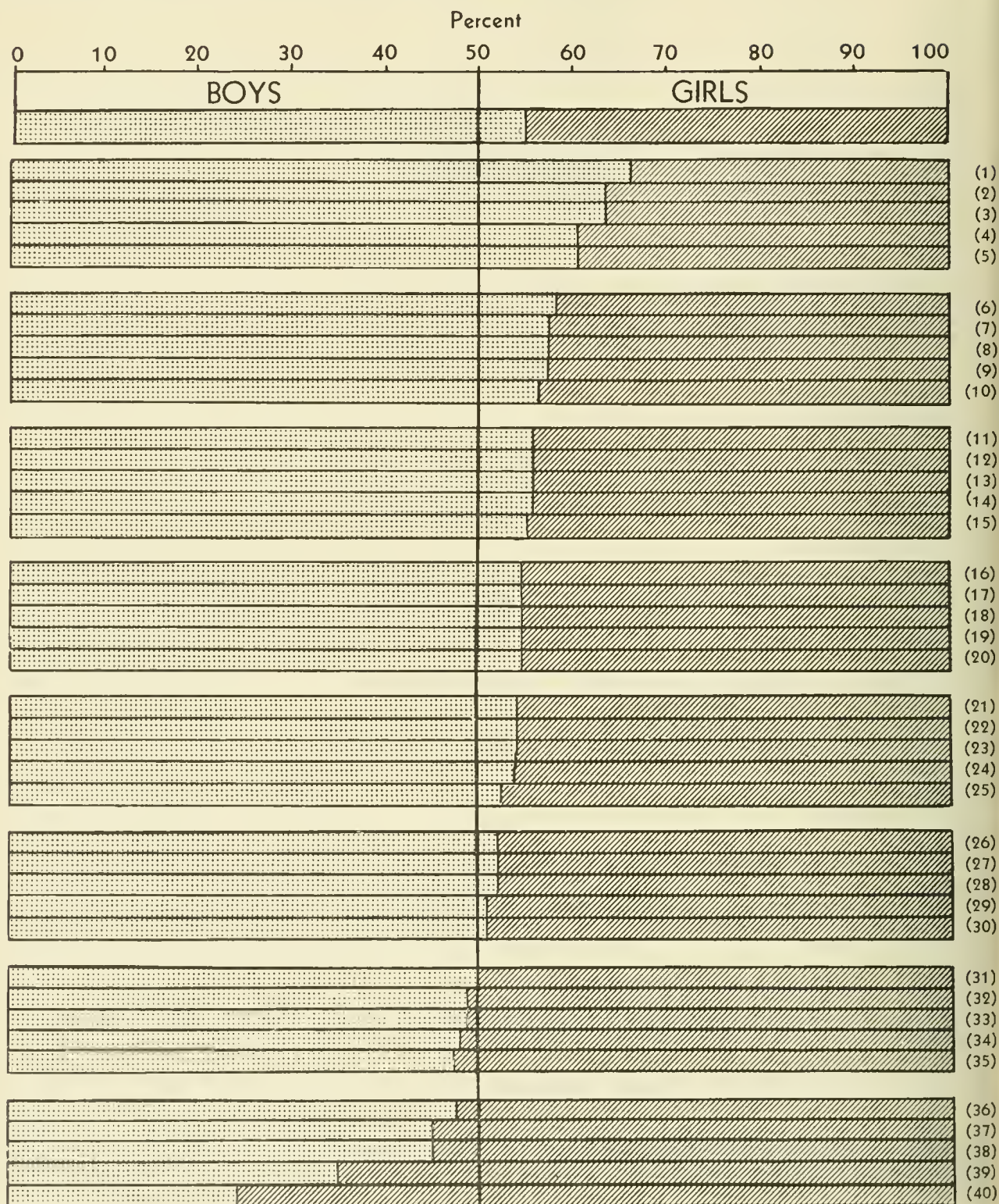


- (1) Poliomyelitis, late effects
- (2) Cerebral palsy
- (3) Diseases of bones and organs of movement, not elsewhere classified
- (4) Clubfoot, congenital or unspecified
- (5) Congenital malformations, not elsewhere classified
- (6) Flatfoot, acquired or unspecified
- (7) Cleft palate and harelip
- (8) Effects of accidents, poisonings, and violence, excluding (11)
- (9) Osteomyelitis and periostitis, except tuberculosis
- (10) Curvature of spine, except congenital or late effect of polio or tuberculosis
- (11) Burns
- (12) Poliomyelitis, acute
- (13) Rheumatic fever, acute
- (14) Arthritis and rheumatism, except rheumatic fever
- (15) Tuberculosis of bones and joints, active or unspecified
- (16) Birth injuries, except cerebral palsy and epilepsy, excluding (32)
- (17) Congenital dislocation of hip
- (18) Flatfoot, congenital
- (19) Chronic rheumatic heart disease
- (20) Diseases of nervous system, except mental disorders, excluding (2) and (29)
- (21) Spina bifida and meningocele
- (22) Deafness and impairment of hearing
- (23) Heart diseases, except congenital malformations, excluding (13) and (19)
- (24) Tuberculosis of bones and joints, late effects
- (25) Congenital malformations of circulatory system
- (26) Rickets, late effects
- (27) Strabismus
- (28) Rickets, active
- (29) Epilepsy
- (30) Diseases of the ear and mastoid process, excluding (22)
- (31) Eye conditions, except congenital or diabetic cataract, excluding (27) and (36)
- (32) Birth injuries, intracranial and spinal, except cerebral palsy and epilepsy
- (33) Diabetes mellitus
- (34) Congenital cataract
- (35) Disorders of occlusion, eruption, and tooth development
- (36) Refractive errors
- (37) Diseases of buccal cavity and esophagus, excluding (35)
- (38) Tuberculosis, except respiratory, excluding (15) and (24)
- (39) Other diagnosed conditions, not elsewhere classified
- (40) Provisional or deferred diagnoses

(Data for 39 States)

A LITTLE OVER HALF OF THE CHILDREN TREATED ARE BOYS . . .

THIS HOLDS FOR MOST OF THE TYPES OF CRIPPLING



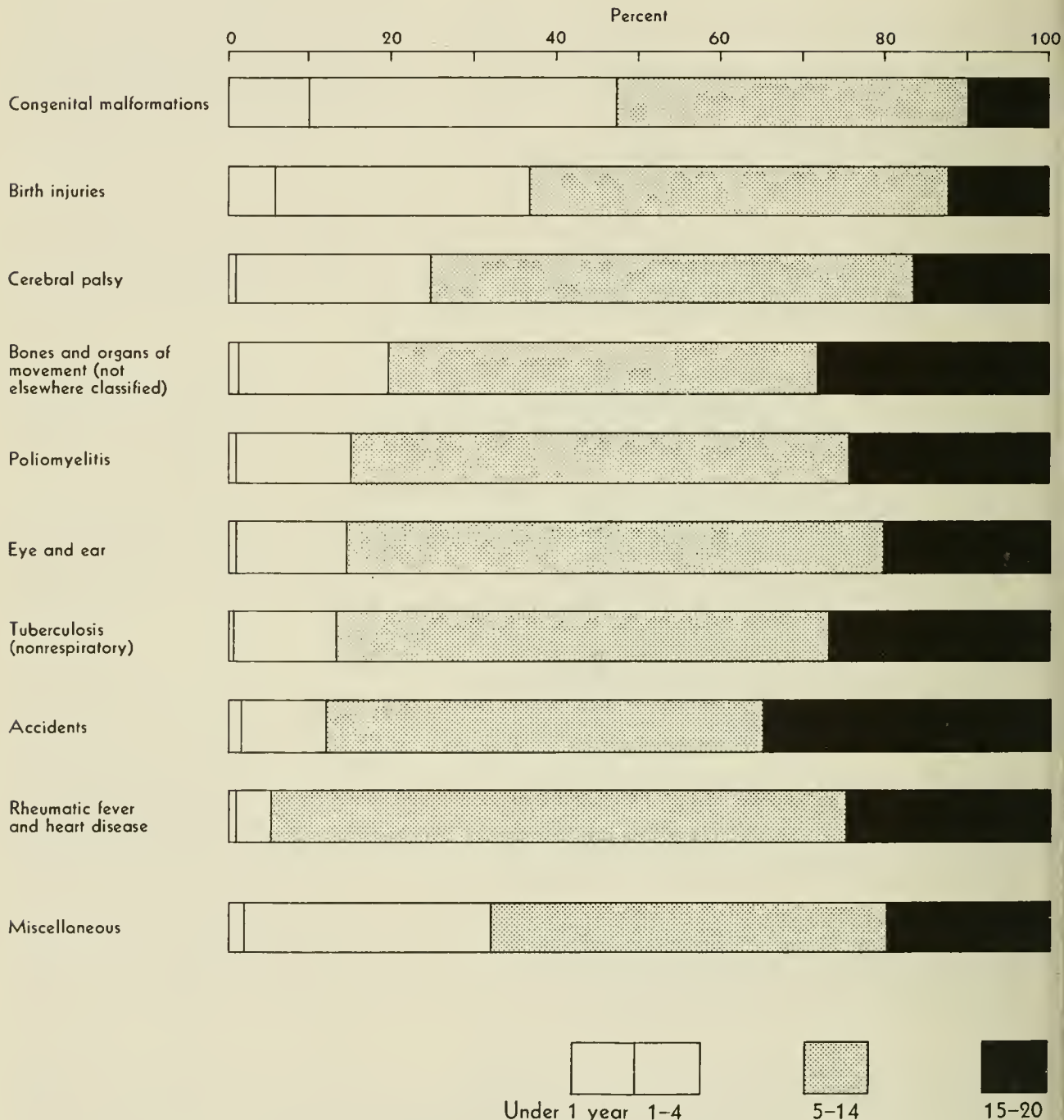
Total, all diagnoses

- (1) Effects of accidents, poisonings, and violence, excluding (28)
- (2) Osteomyelitis and periostitis, except tuberculosis
- (3) Clubfoot, congenital or unspecified
- (4) Diseases of bones and organs of movement, not elsewhere classified
- (5) Cleft palate and harelip
- (6) Rickets, active
- (7) Tuberculosis of bones and joints, active or unspecified
- (8) Rickets, late effects
- (9) Deafness and impairment of hearing
- (10) Eye conditions, except congenital or diabetic cataract, excluding (21) and (38)
- (11) Poliomyelitis, acute
- (12) Cerebral palsy
- (13) Diseases of nervous system, except mental disorders, excluding (12) and (18)
- (14) Diagnosed conditions not elsewhere classified
- (15) Diseases of the ear and mastoid process, excluding (9)
- (16) Tuberculosis of bones and joints, late effects
- (17) Poliomyelitis, late effects
- (18) Epilepsy
- (19) Disorders of occlusion, eruption, and tooth development
- (20) Flatfoot, acquired or unspecified
- (21) Strabismus
- (22) Congenital malformations, not elsewhere classified
- (23) Birth injuries, except cerebral palsy and epilepsy, excluding (31)
- (24) Provisional or deferred diagnoses
- (25) Chronic rheumatic heart disease
- (26) Arthritis and rheumatism, except rheumatic fever
- (27) Flatfoot, congenital
- (28) Burns
- (29) Tuberculosis, except respiratory, excluding (7) and (16)
- (30) Heart diseases, except congenital malformations, excluding (25) and (34)
- (31) Birth injuries, intracranial and spinal, except cerebral palsy and epilepsy
- (32) Congenital cataract
- (33) Congenital malformations of circulatory system
- (34) Rheumatic fever, acute
- (35) Diseases of buccal cavity and esophagus, excluding (19)
- (36) Spina bifida and meningocele
- (37) Diabetes mellitus
- (38) Refractive errors
- (39) Curvature of spine, except congenital or late effect of polio or tuberculosis
- (40) Congenital dislocation of hip

*For a few of the conditions, there was a large difference in the proportion of boys and girls who received treatment in 1948, in part reflecting sex differences in the incidence of those conditions. Thus we see many more boys suffering effects of accidents, and many more girls with congenital hip dislocation.*

(Data for 39 States)

# THE AGES OF CHILDREN RECEIVING TREATMENT VARY MARKEDLY WITH THE CRIPPLING CONDITION INVOLVED



(Data for 39 States)

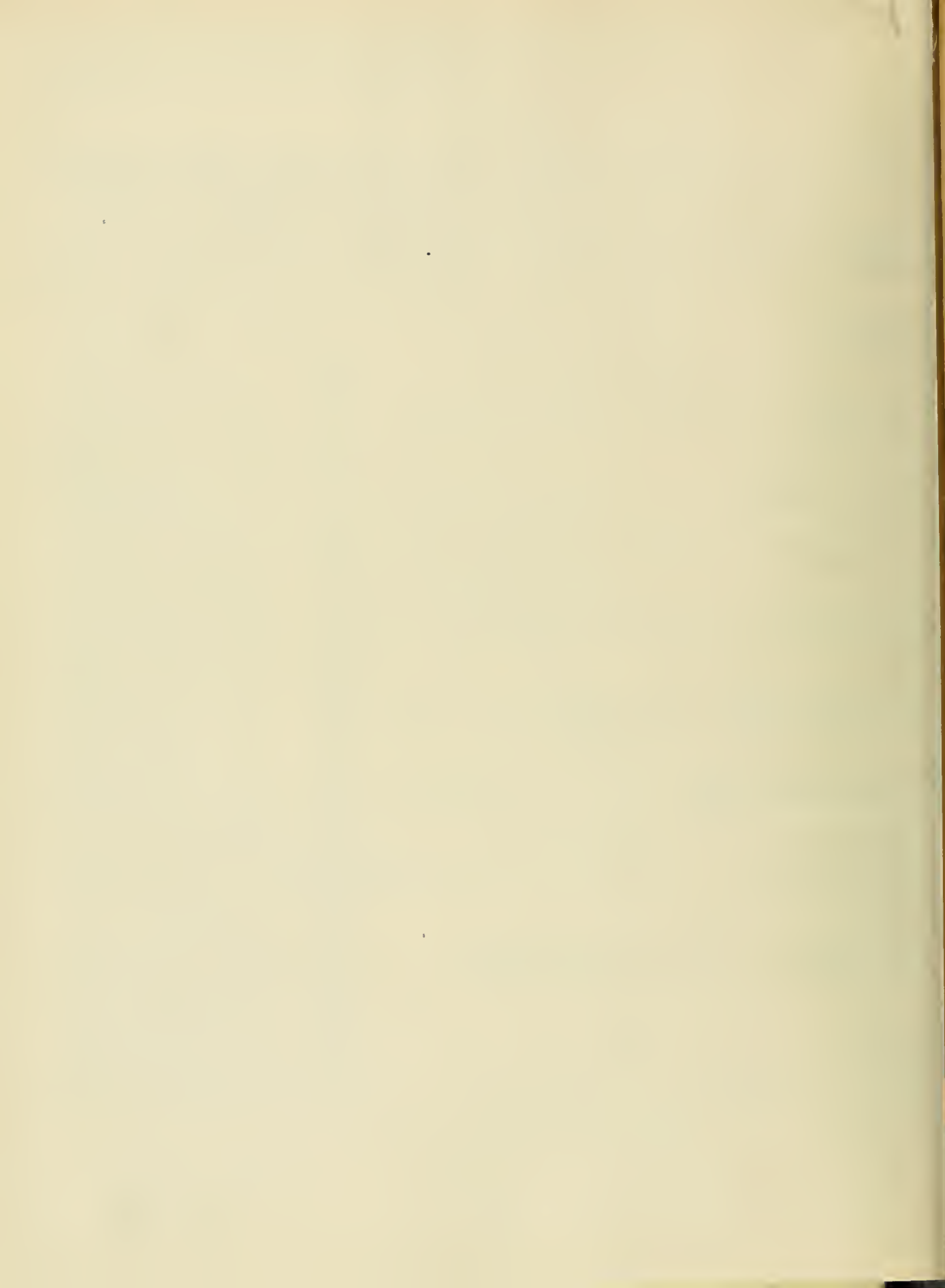
Relatively more young children received treatment for congenital malformations and birth injuries than for any of the other groups of diagnoses. School-age children predominated in the rheumatic fever and heart disease category. Proportionately more of the oldest children were

treated for conditions resulting from accidents than for any other broad group of crippling conditions.

The percentage distribution of children who received treatment in 1948, by age, according to a more detailed diagnostic classification is shown below:

Diagnosis	Total	Under 1	1-4	5-14	15-20
Total, all diagnoses	100.0	3.2	23.1	52.9	20.8
Tuberculosis of bones and joints, active or unspecified	100.0	0.4	15.9	61.1	22.6
Tuberculosis of bones and joints, late effects	100.0	0.1	7.1	58.3	34.5
Other tuberculosis except respiratory	100.0	2.2	22.2	57.8	17.8
Poliomyelitis, acute	100.0	2.5	34.5	51.9	11.1
Poliomyelitis, late effects	100.0	0.2	12.7	62.7	24.4
Diabetes mellitus	100.0	0	3.7	46.7	49.6
Rickets, active	100.0	3.0	71.1	23.6	2.3
Rickets, late effects	100.0	0.5	50.9	44.4	4.2
Cerebral palsy	100.0	0.6	24.7	58.8	15.9
Epilepsy	100.0	0	21.3	56.0	22.7
Other diseases of the nervous system, except mental	100.0	3.4	22.8	53.6	20.2
Refractive errors	100.0	1.6	19.1	58.7	20.6
Strabismus	100.0	0.7	23.1	61.5	14.7
Other eye conditions except congenital or diabetic cataract	100.0	2.4	27.1	52.9	17.6
Deafness and impairment of hearing	100.0	0.2	6.4	70.8	22.6
Other diseases of the ear and mastoid	100.0	0.5	18.6	63.4	17.5
Rheumatic fever, acute	100.0	0.5	3.3	73.7	22.5
Chronic rheumatic heart disease	100.0	0.3	2.4	68.6	28.7
Other diseases of the heart, except congenital	100.0	0.2	3.9	73.8	22.1
Disorders of occlusion and tooth development	100.0	0	9.9	69.0	21.1
Other diseases of buccal cavity and esophagus	100.0	0	6.6	76.7	16.7
Arthritis and rheumatism	100.0	1.0	7.7	50.8	40.5
Osteomyelitis and periostitis	100.0	0.7	6.6	48.9	43.8
Curvature of spine	100.0	0.5	4.7	48.7	46.1
Flatfoot, acquired or unspecified	100.0	0.3	34.2	53.9	11.6
Other diseases of the bones and organs of movement	100.0	0.8	24.2	49.7	25.3
Spina bifida and meningocele	100.0	13.0	30.4	43.9	12.7
Congenital cataract	100.0	8.1	26.7	51.2	14.0
Congenital malformations of circulatory system	100.0	6.8	25.6	58.1	9.5
Cleft palate and harelip	100.0	16.4	39.1	34.7	9.8
Congenital dislocation of hip	100.0	1.8	28.7	50.2	19.3
Clubfoot, congenital or unspecified	100.0	11.0	42.8	39.0	7.2
Flatfoot, congenital	100.0	2.0	41.7	46.9	9.4
Other congenital malformations	100.0	6.1	32.4	46.4	15.1
Injuries at birth, intracranial or spinal	100.0	7.3	36.0	42.7	14.0
Other injuries at birth	100.0	6.6	30.7	52.4	10.3
Burns	100.0	1.2	16.4	58.8	23.6
Other morbid conditions due to accidents	100.0	1.2	8.3	51.2	39.3
Other diagnosed conditions	100.0	3.2	25.2	52.0	19.6
Provisional or deferred diagnoses	100.0	2.9	29.0	51.9	16.2

(Data for 39 States)



*Dep*

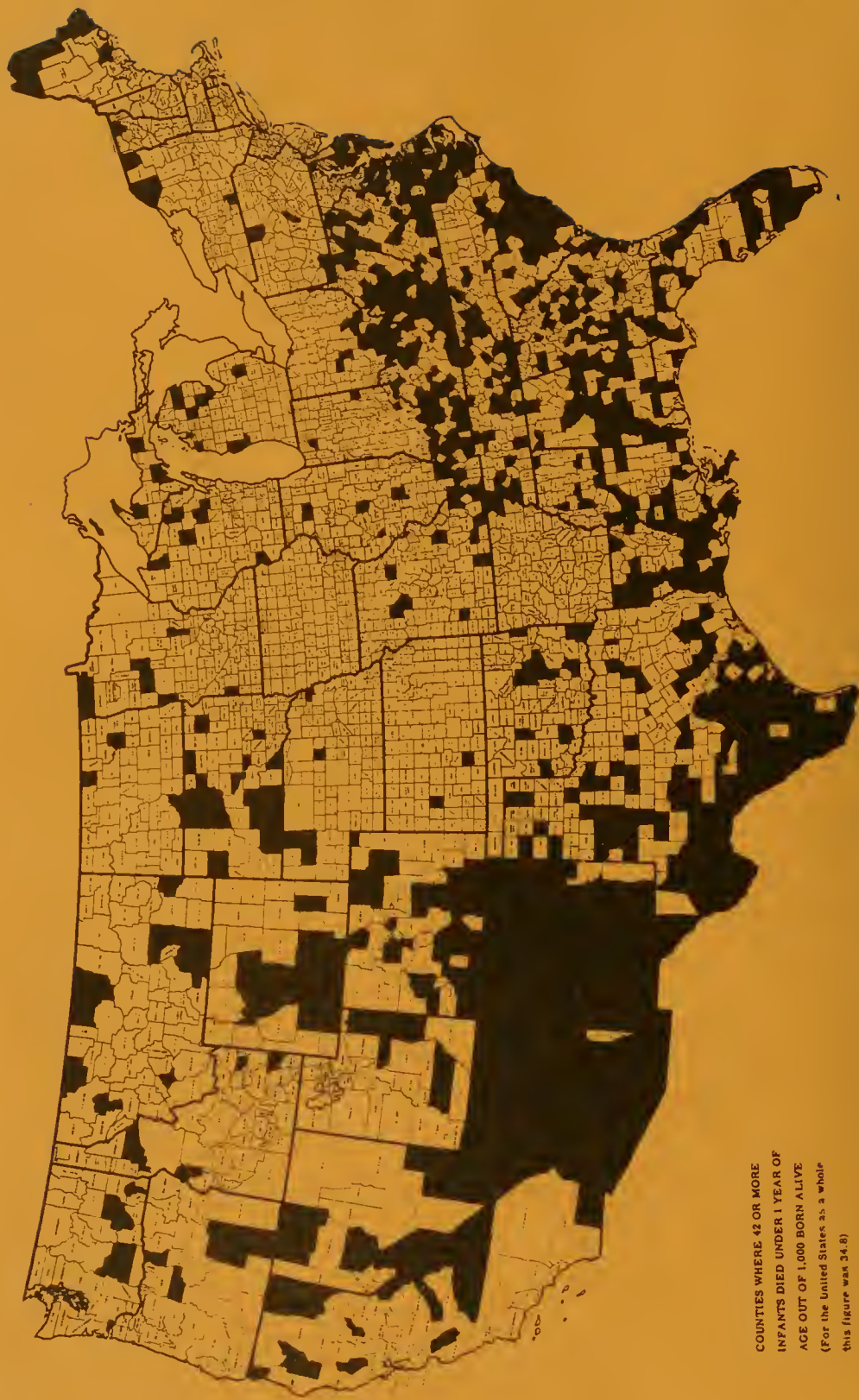
CHILDREN'S BUREAU

STATISTICAL SERIES

NUMBER *12*

INFANT AND MATERNAL  
MORTALITY IN  
METROPOLITAN  
AND OUTLYING  
COUNTIES  
1944 — 48

# U. S. COUNTIES WITH THE HIGHEST INFANT MORTALITY RATES 1944 - 48



COUNTIES WHERE 42 OR MORE  
INFANTS DIED UNDER 1 YEAR OF  
AGE OUT OF 1,000 BORN ALIVE  
(For the United States as a whole  
this figure was 34.8)

INFANT AND MATERNAL MORTALITY IN  
METROPOLITAN AND OUTLYING COUNTIES, 1944-48 <sup>1/</sup>

Thanks to many improvements in medical standards, hospital facilities, methods of treatment, and programs of maternal and infant care, childbirth in the United States is far safer today than before the passage of the Social Security Act in 1935. Yet more has been achieved in urban than in rural areas, and mortality rates are still high in some of the outlying areas which title V of the Act was designed to aid.

The accompanying map shows individual counties with the highest infant mortality rates; that is, those in which the average rate in 1944-48 was 42.0 or higher. These areas comprise nearly one-fourth of the counties in the United States. If the infant mortality rate in these counties had been 34.8, which was the average national rate in 1944-48, the lives of approximately 40,000 infants would have been saved in that 5-year period.

The data in this report are arranged to help personnel in maternal and child health programs identify the kinds of areas in their respective States where infant and maternal mortality rates are still relatively high.

Use is made of the grouping of counties set forth in an earlier <sup>2/</sup> study. Each county in the United States was classified in one of five groups, depending on whether the county included an urban center of 50,000 or more population, or was near one, or was relatively remote from such a center. Table 1 (page 2) shows the definitions of these county groups more precisely, as well as the number of States having counties of each kind and the proportion of births in the United States in each county grouping.

Average rates over the 5-year period 1944-48 are used, and comparisons with average rates over the 5-year period 1941-45 are included. The infant mortality rates are deaths under 1 year per 1,000 live births. The maternal mortality rates are maternal deaths (5th Revision of the International Lists) per 10,000 live births. All births and deaths are allocated to the mother's usual place of residence.

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<sup>1/</sup> Report prepared by Eleanor P. Hunt and Bronson Price, Program Research Branch, Division of Research.

<sup>2/</sup> See pp. 8-10 and map in: "Child Health Services and Pediatric Education," Report of the Committee for the Study of Child Health Services, American Academy of Pediatrics; Commonwealth Fund, New York, 1949.

Table 1.--CHARACTERISTICS OF COUNTY GROUPS

County Group (Based on 1940 census)	Number of counties	Number of States having counties of given kind	Proportion of U. S. births 1944-48
<u>Greater metropolitan:</u> counties including cities of 1,000,000 or more population.....	63	14	26%
<u>Lesser metropolitan:</u> counties including cities of 50,000 to 1,000,000 population.....	177	39	26%
<u>Adjacent:</u> counties bordering on or having ready access to a greater or lesser metropolitan county.....	668	44	15%
<u>Isolated semi-rural:</u> counties not so bordering and having an incorporated place of 2,500 or more population.....	1,116	45	25%
<u>Isolated rural:</u> all other counties.....	<u>1,052</u>	43	<u>8%</u>
All counties (48 States and D. C.).....	3,076	--	100%

#### Recent National Trends

As background information for judging the rates to be shown later for particular States, certain facts about trends in the country as a whole are noteworthy (table 2).

For all counties taken together, the percent reduction in maternal mortality was more than twice as great as for infant mortality from 1941-45 to 1944-48. The maternal rate was cut from 25.0 to 16.4 (34.4%), while the infant rate was reduced from 40.7 to 34.8 (14.5%).

Maternal mortality has shown wider variation than infant mortality, as between metropolitan and isolated counties. While the risk of death for infants in isolated counties has been larger by approximately one-fourth than the risk for infants in metropolitan counties, the risk for mothers in isolated counties has been about 50% greater than for mothers in metropolitan counties. The data in table 2 show that these conditions were approximately true in both the 1941-45 and 1944-48 periods.

Table 2.--INFANT AND MATERNAL MORTALITY RATES, PERCENT REDUCTION,  
AND EXCESS IN EACH RATE OVER GREATER METROPOLITAN RATE:  
U. S., 1941-45 AND 1944-48.

Infant rates are deaths under 1 year per 1,000 live births.  
Maternal rates are maternal deaths (5th Revision of International Lists) per 10,000 live births. By place of residence.

County group	INFANT MORTALITY			MATERNAL MORTALITY		
	Average RATE 1941-45	Average RATE 1944-48	Reduc- tion	Average RATE 1941-45	Average RATE 1944-48	Reduc- tion
All counties...	40.7	34.8	14.5%	25.0	16.4	34.4%
Metropolitan counties...	<u>36.5</u>	<u>32.0</u>	<u>12.3%</u>	<u>21.5</u>	<u>13.8</u>	<u>35.8%</u>
Greater metropolitan...	33.1	29.7	10.3%	20.2	12.8	36.6%
Lesser metropolitan...	39.9	34.4	13.8%	22.7	14.7	35.3%
Adjacent counties.....	42.0	35.4	15.7%	25.5	16.8	34.1%
Isolated counties.....	<u>46.6</u>	<u>39.1</u>	<u>16.1%</u>	<u>30.1</u>	<u>20.4</u>	<u>32.2%</u>
Semi-rural.....	47.0	39.5	16.0%	29.8	19.9	33.2%
Rural.....	45.3	37.6	17.0%	31.0	22.0	29.0%

EXCESS IN EACH RATE OVER GREATER METROPOLITAN RATE:

Greater metropolitan....	(0%)	(0%)	-	(0%)	(0%)	-
Lesser metropolitan....	21%	16%	-	12%	15%	-
Adjacent.....	27%	19%	-	26%	31%	-
Isolated.....	<u>41%</u>	<u>32%</u>	-	<u>49%</u>	<u>59%</u>	-
Semi-rural.....	42%	33%	-	48%	55%	-
Rural.....	37%	27%	-	53%	72%	-

From 1941-45 to 1944-48 infant mortality has shown some "evening up," between the rates in isolated and in metropolitan counties. For maternal mortality, however, the disparity in rates between metropolitan and isolated counties increased.

These opposite trends are best shown in terms of the percentages in the lower part of table 2. In computing the percentages in each column, the rate in the greater-metropolitan counties has been taken as a basis for comparison. For the infant rate, the percentage excess in isolated counties was cut from 41% to 32% between the two periods. At the same time the excess for the maternal rate rose from 49% to 59%.

In terms of the more extreme comparison of the isolated-rural maternal rate with the greater-metropolitan maternal rate, the excess in 1944-48 amounted to 72%.

#### Infant Mortality Rates in Isolated-Rural Counties

Although there is little reason to doubt that the comparison just made is valid for the maternal rate, the same cannot be said for a similar comparison with respect to the infant rate. According to table 2, in 1944-48 the infant rate for isolated-rural counties would appear only 27% higher than the infant rate for greater-metropolitan counties.

To whatever extent "registration phenomena" may affect infant or maternal mortality rates, the effect is probably greatest on the infant rate reported from isolated-rural areas. Occasionally an infant born alive and dying soon after birth is not registered either as a live birth or death, and the infant may be registered as a fetal death (stillbirth). It has not been established that this happens frequently in any area, but to the extent that such errors occur at all, they probably occur relatively often in isolated-rural areas. The effect would be to make the infant mortality rates available for isolated-rural areas lower than their true values. This, together with possible errors in allocating infant deaths to place of residence, may account in part for the fact that the infant rates reported from isolated-rural counties are somewhat lower (better) than the infant rates reported from semi-rural counties.

However, even if the relatively low isolated-rural infant rates may be largely explainable in such terms, the effect is probably similar in degree for the isolated-rural areas of most States. If so, a comparison of any one State's isolated-rural infant rate with that for other States probably has meaning, despite the bias that may exist in these rates as a whole.

It would nevertheless be very desirable, before taking a State's isolated-rural infant mortality rate at face value for purposes of program planning, to inquire into reporting conditions which may affect that rate.

It should be noted also that in many States the births in isolated-rural counties comprise scarcely one-fourth of the births in all isolated counties, i.e. in semi-rural and rural counties taken together. (As table 2 shows, in 1944-48 only 8% of total births in the United States were in isolated-rural counties while 25% were in semi-rural counties). Therefore, except as officials concerned with registration may advise otherwise, a State's semi-rural infant mortality rate can usually be taken as a good indication of the rate for isolated counties as a whole.

### State Charts

In the charts which complete this report, two different presentations are used to show the 1944-48 infant and maternal rates for the individual States. The two sets of charts are complementary to each other, and it is worth while to consider the data for a particular State in both sets.

In charts 1-5, the first chart (page 7) shows the rates in greater-metropolitan counties only, as collected and ranked for those 14 States having such counties. The next chart shows the rates in lesser-metropolitan counties for the 39 States having counties of that kind, and so on to chart 5 which gives the rates for isolated-rural counties. <sup>3/</sup>

The reader may readily locate and mark his own State on whichever charts in this set contain rates for his State. It is best to consider first the infant rates on the left side of the charts, and separately the maternal rates on the right side.

A particular rate may be related to the lowest (best) rate shown at the top of a column, or to the U. S. rate shown at the bottom, or to both. This procedure enables one to see what a State's relative standing is, within each county group for which the State has counties of the given kind.

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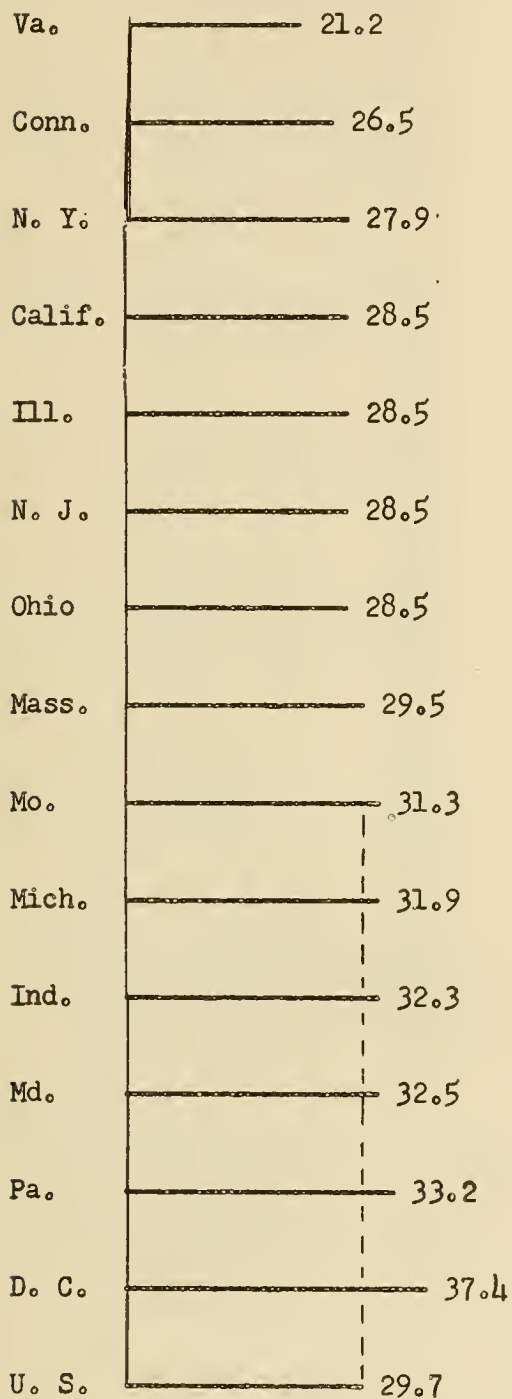
<sup>3/</sup>The names of the individual counties in a State comprising each county group are given in "Health Services for the Rural Child; Availability of Hospitals, Physicians and Dentists in Service Areas", by J. P. Hubbard, M. Y. Pennell, and R. H. Britten; published in 1948 by the American Medical Association and available in most public health libraries.

The second set of charts (beginning on page 12) shows county group differences in rates for the United States as a whole and for each State, 1944-48. The rates for the United States are shown first because they provide background information for judging data for the individual States, which follow in alphabetic order. Percentage changes in rates since the period 1941-45 are included on each chart.

The charts in this second set are self-explanatory, though it should be noted that the footnotes include information which is essential in judging the significance of certain rates and percentage changes.

Chart 1.  
GREATER METROPOLITAN COUNTIES  
 Rankings of rates for the 14 States having such areas.

INFANT  
mortality rate



MATERNAL  
mortality rate

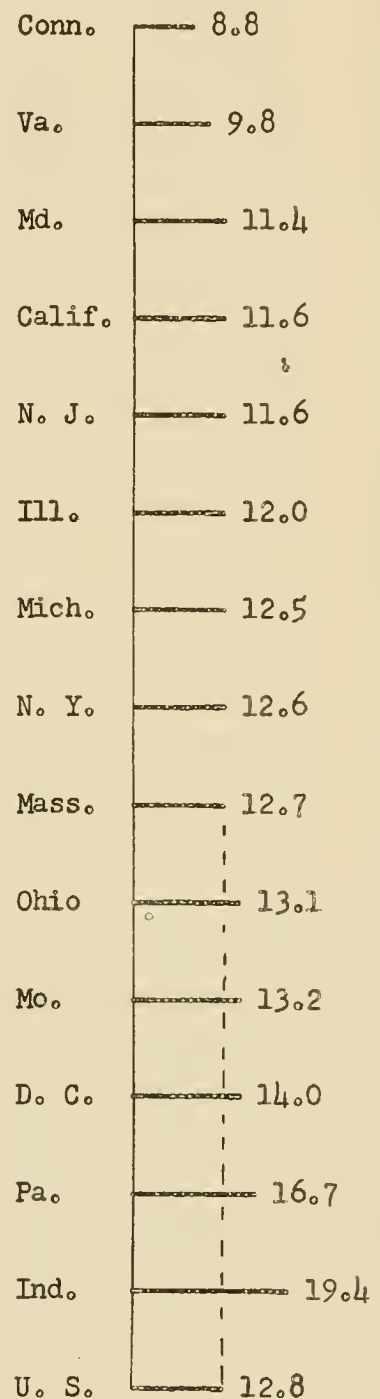


Chart 2.  
LESSER METROPOLITAN COUNTIES  
 Rankings of rates for the 39 States having such areas.

INFANT  
mortality rate

Oreg.	24.0
Conn.	27.0
Minn.	27.2
Utah	27.2
Wis.	28.0
Nebr.	28.5
R. I.	29.1
Wash.	29.1
Iowa	30.7
Mass.	30.7
Del.	30.8
Kans.	30.8
N. Y.	31.1
Ill.	31.4
Ind.	32.0
Ohio	32.4
Mich.	32.5
Ark.	32.8
Calif.	33.0
Pa.	33.3
Mo.	34.4
Okla.	34.4
N. H.	34.5
Colo.	35.4
La.	35.9
N. J.	36.7
Me.	37.6
Fla.	37.8
Ga.	38.0
N. C.	38.2
Va.	39.1
Ky.	39.3
Ala.	40.9
Tenn.	41.5
Texas	42.5
Miss.	43.3
W. Va.	43.6
S. C.	44.3
Ariz.	47.2
U. S.	34.4

MATERNAL  
mortality rate

Minn.	8.4
Utah	8.6
Nebr.	9.4
Conn.	9.5
Oreg.	9.5
Mich.	10.8
Wash.	11.3
Ill.	12.3
Mass.	12.3
Calif.	12.6
Wis.	12.6
Ind.	12.8
N. Y.	12.8
Ohio	12.8
Iowa	13.0
Okla.	13.1
Del.	13.3
R. I.	13.6
Kans.	13.7
Colo.	14.3
W. Va.	14.8
La.	14.9
Me.	14.9
Mo.	15.3
Texas	15.5
Pa.	16.1
Ariz.	16.5
Ky.	17.8
N. J.	17.9
Va.	18.4
Tenn.	18.9
N. C.	19.8
Ga.	20.7
Fla.	20.8
N. H.	20.9
Ark.	22.2
S. C.	22.3
Ala.	27.3
Miss.	34.5
U. S.	14.7

Chart 3.  
A D J A C E N T   C O U N T I E S

Rankings of rates for the 44 States having such areas.

I N F A N T  
mortality rate

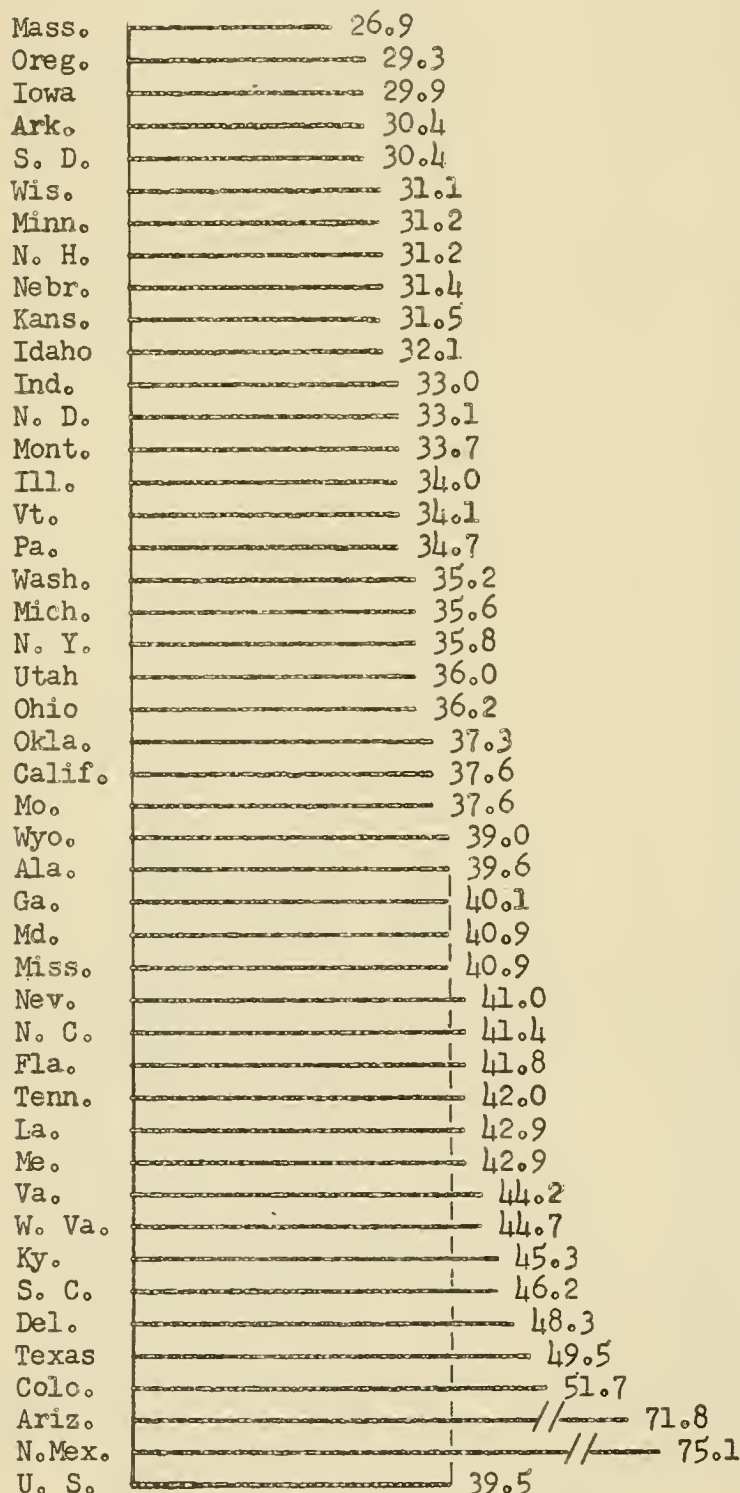
S. D.	14.6
Nebr.	26.0
Oreg.	27.3
Utah	27.5
Minn.	27.7
Iowa	27.9
Kans.	28.0
Wis.	28.1
Mass.	29.3
Conn.	29.6
Idaho	29.6
Ill.	30.5
Mo.	30.7
Wash.	30.7
Vt.	30.8
N. H.	31.4
Ind.	31.6
R. I.	32.2
N. J.	32.4
N. Y.	32.5
Ark.	33.2
Ohio	34.3
Pa.	34.4
Mich.	34.5
Okla.	35.1
Me.	35.2
Ga.	35.3
N. C.	35.5
Calif.	35.8
Miss.	36.4
Md.	36.8
Del.	37.5
Va.	40.1
Ala.	41.5
Tenn.	41.7
S. C.	42.1
Fla.	42.3
La.	42.3
Ky.	42.6
W. Va.	44.1
Colo.	44.8
Texas	44.9
Ariz.	57.2
N. Mex.	// 74.1
U. S.	35.4

M A T E R N A L  
mortality rate

Del.	7.7
S. D.	7.7
Idaho	8.5
Oreg.	9.4
Conn.	9.6
Iowa	9.9
R. I.	10.4
Mich.	10.9
Wis.	11.2
Utah	11.4
Wash.	11.5
N. H.	11.6
Minn.	11.8
Mass.	12.3
N. J.	12.6
Nebr.	12.7
Vt.	12.7
Me.	12.8
Ill.	13.4
Ind.	13.6
N. Y.	13.7
Calif.	14.0
Ohio	14.0
Md.	14.9
Kans.	15.4
Mo.	15.8
Pa.	16.4
W. Va.	16.8
Colo.	17.1
N. C.	18.4
Tenn.	18.5
Ky.	18.9
Va.	19.4
Okla.	21.3
Texas	21.6
Ark.	22.8
La.	23.3
Ariz.	24.0
N. Mex.	25.1
Ga.	26.1
Fla.	26.4
S. C.	28.5
Ala.	31.3
Miss.	33.2
U. S.	16.8

Chart 4.  
SEMI-RURAL COUNTIES  
Rankings of rates for the 45 States having such areas.

INFANT  
mortality rate



MATERNAL  
mortality rate

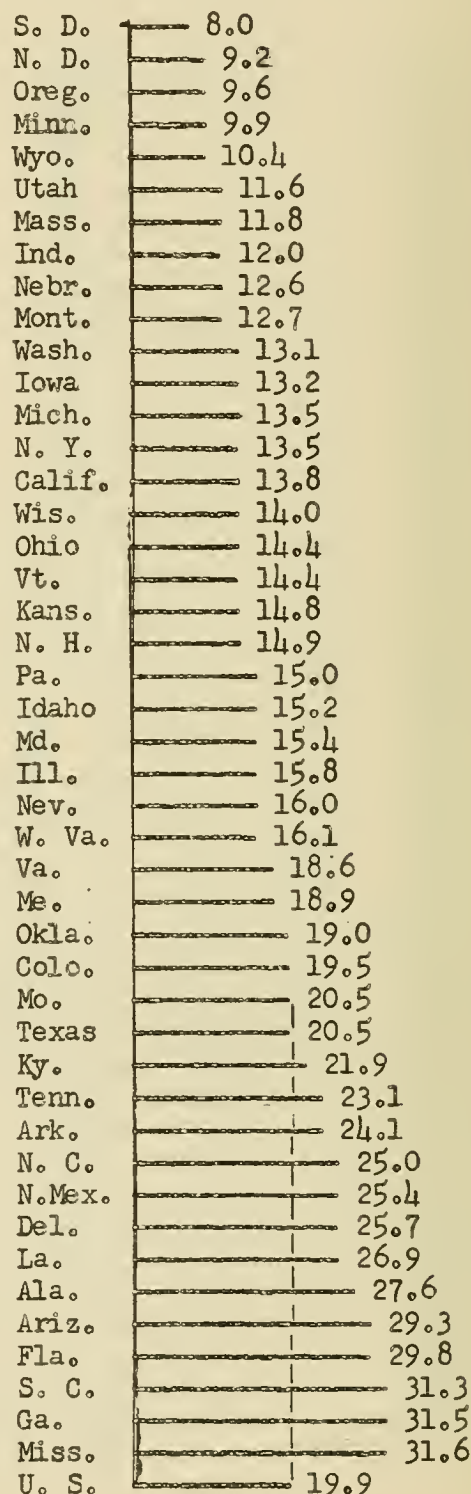


Chart 5.  
I S O L A T E D - R U R A L C O U N T I E S  
Rankings of rates for the 43 States having such areas

I N F A N T  
mortality rate

Ark.	26.3
Iowa	28.0
Kans.	28.2
Nebr.	28.2
Minn.	29.8
Ind.	30.2
N. D.	30.4
Vt.	30.7
Oreg.	31.3
Idaho	31.6
Utah	31.7
Mont.	32.6
N. H.	32.7
Pa.	33.0
Wis.	33.4
Mo.	33.5
Ohio	33.5
S. D.	33.6
Wyo.	33.7
Okla.	33.8
Wash.	34.4
Tenn.	34.8
Ga.	35.6
Miss.	37.1
Ill.	37.6
Calif.	37.9
Mass.	38.6
Ky.	38.8
La.	39.3
N. C.	39.3
Me.	39.5
Ala.	39.7
Fla.	40.1
Md.	40.2
Mich.	40.5
Texas	41.2
W. Va.	41.2
Nev.	41.5
S. C.	45.1
Colo.	45.8
Va.	47.1
Ariz.	// 93.4
N. Mex.	// 97.7
U. S.	37.6

M A T E R N A L  
mortality rate

N. H.	6.8
Kans.	9.3
Iowa	10.0
Wash.	10.1
Minn.	10.2
Wyo.	11.1
Mont.	12.2
Vt.	12.9
Nebr.	13.1
N. D.	14.0
Pa.	14.9
Idaho	15.3
W. Va.	15.7
Mich.	16.0
Calif.	16.4
Utah	16.4
Md.	16.7
S. D.	16.9
Wis.	17.2
Ohio	18.0
Mass.	18.4
Okla.	18.5
Ind.	19.0
Ark.	19.7
Ky.	20.0
Mo.	20.4
Nev.	20.5
Va.	21.2
Tenn.	21.5
Me.	21.6
Texas	22.0
Ill.	22.5
Colo.	23.9
Oreg.	24.4
N. C.	26.7
La.	28.3
Miss.	30.1
Ala.	32.2
Ga.	34.0
S. C.	34.9
N. Mex.	35.5
Fla.	36.8
Ariz.	39.
U. S.	22.0

# UNITED STATES

## INFANT MORTALITY

Average rate in 1944-48  
(Deaths under one year  
per 1,000 live births)

ALL COUNTIES	34.8
Greater Met.	29.7
Lesser Met.	34.4
Adjacent	35.4
Semi-rural	39.5
Rural	37.6

Decrease from average rate in 1941-45

ALL COUNTIES	15%
Greater Met.	10%
Lesser Met.	14%
Adjacent	16%
Semi-rural	16%
Rural	17%

## MATERNAL MORTALITY

Average rate in 1944-48  
(Maternal deaths per  
10,000 live births)

ALL COUNTIES	16.4
Greater Met.	12.8
Lesser Met.	14.7
Adjacent	16.8
Semi-rural	19.9
Rural	22.0

Decrease from average rate in 1941-45

ALL COUNTIES	34%
Greater Met.	37%
Lesser Met.	35%
Adjacent	34%
Semi-rural	33%
Rural	29%

# INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	40.4
* Lesser Met.	40.9
Adjacent	41.5
Semi-rural	39.6
Rural	39.7

# MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/28.9
* Lesser Met.	27.3
Adjacent	31.3
Semi-rural	27.6
Rural	32.2

Decrease from average rate in 1941-45

ALL COUNTIES	17%
* Lesser Met.	19%
Adjacent	15%
Semi-rural	16%
Rural	18%

Decrease from average rate in 1941-45

ALL COUNTIES	24%
* Lesser Met.	29%
Adjacent	b/15%
Semi-rural	28%
Rural	b/16%

\* No greater metropolitan counties in Alabama.

a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	56.3	
*		
Lesser Met.	47.2	
Adjacent	57.2	
Semi-rural	71.8	//
Rural	93.4	//

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	21.5	
*		
Lesser Met.	16.5	
Adjacent	24.0	
Semi-rural	29.3	
Rural	39.6	

Decrease from average rate in 1941-45

ALL COUNTIES	26%	
*		
Lesser Met.	28%	
Adjacent	22%	
Semi-rural	24%	
Rural	17%	

Decrease from average rate in 1941-45

ALL COUNTIES	30%	
*		
Lesser Met.	36%	
Adjacent	b/10%	.....
Semi-rural	30%	
Rural	c/(16%)	

\* No greater metropolitan counties in Arizona.  
 b/ Decrease in rate not statistically significant.  
 c/ Rate increased, but change not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	30.4	
*		
Lesser Met.	32.8	
Adjacent	33.2	
Semi-rural	30.4	
Rural	26.3	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/23.1</u>	
*		
Lesser Met.	22.2	
Adjacent	22.8	
Semi-rural	24.1	
Rural	19.7	

Decrease from average rate in 1941-45

ALL COUNTIES	19%	
*		
Lesser Met.	19%	
Adjacent	19%	
Semi-rural	20%	
Rural	19%	

Decrease from average rate in 1941-45

ALL COUNTIES	34%	
*		
Lesser Met.	<u>b/28%</u>	.....
Adjacent	38%	
Semi-rural	32%	
Rural	42%	

\* No greater metropolitan counties in Arkansas.

a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	30.9	
Greater Met.	28.5	
Lesser Met.	33.0	
Adjacent	35.8	
Semi-rural	37.6	
Rural	37.9	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	12.2	
Greater Met.	11.6	
Lesser Met.	12.6	
Adjacent	14.0	
Semi-rural	13.8	
Rural	16.4	

Decrease from average rate in 1941-45

ALL COUNTIES	10%	
Greater Met.	9%	
Lesser Met.	11%	
Adjacent	12%	
Semi-rural	13%	
Rural	b/6%	100.

Decrease from average rate in 1941-45

ALL COUNTIES	36%	
Greater Met.	36%	
Lesser Met.	31%	
Adjacent	27%	
Semi-rural	42%	
Rural	43%	

b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	42.4	
#		
Lesser Met.	35.4	
Adjacent	44.8	
Semi-rural	51.7	
Rural	45.8	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	17.2	
#		
Lesser Met.	14.3	
Adjacent	17.1	
Semi-rural	19.5	
Rural	23.9	

Decrease from average rate in 1941-45

ALL COUNTIES	16%	
#		
Lesser Met.	13%	
Adjacent	19%	
Semi-rural	16%	
Rural	18%	

Decrease from average rate in 1941-45

ALL COUNTIES	32%	
#		
Lesser Met.	b/24%	.....
Adjacent	48%	
Semi-rural	31%	
Rural	b/22%	.....

\* No greater metropolitan counties in Colorado.  
 b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	27.7	
Greater Met.	26.5	
Lesser Met.	27.0	
Adjacent	29.6	
*		
*		

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/9.4</u>	
Greater Met.	8.8	
Lesser Met.	9.5	
Adjacent	9.6	
*		
*		

Decrease from average rate in 1941-45

ALL COUNTIES	9%	
Greater Met.	12%	
Lesser Met.	9%	
Adjacent	<u>b/7%</u>	...
*		
*		

Decrease from average rate in 1941-45

ALL COUNTIES	42%	
Greater Met.	41%	
Lesser Met.	41%	
Adjacent	46%	
*		
*		

\* No semi-rural or rural counties in Connecticut.

a/ Variations from this figure in rates shown for county groups are not statistically significant.

b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	35.0
* Lesser Met.	30.8
Adjacent	37.5
* Semi-rural	48.3

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	15.1
* Lesser Met.	13.3
Adjacent	7.7
* Semi-rural	25.7

Decrease from average rate in 1941-45

ALL COUNTIES	22%
* Lesser Met.	22%
Adjacent	22%
* Semi-rural	22%

Decrease from average rate in 1941-45

ALL COUNTIES	b/31%
* Lesser Met.	b/27%
Adjacent	b/58%
* Semi-rural	b/30%

\* No greater metropolitan or rural counties in Delaware.  
 b/ Decrease in rate not statistically significant.

DISTRICT OF COLUMBIA

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES 37.4                     

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES 14.0                     

Decrease from average rate in 1941-45

ALL COUNTIES 25%                     

Decrease from average rate in 1941-45

ALL COUNTIES 37%

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	40.1	
*		
Lesser Met.	37.8	
Adjacent	42.3	
Semi-rural	41.8	
Rural	40.1	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	26.3	
*		
Lesser Met.	20.8	
Adjacent	26.4	
Semi-rural	29.8	
Rural	36.8	

Decrease from average rate in 1941-45

ALL COUNTIES	15%	
*		
Lesser Met.	13%	
Adjacent	10%	
Semi-rural	17%	
Rural	16%	

Decrease from average rate in 1941-45

ALL COUNTIES	33%	
*		
Lesser Met.	31%	
Adjacent	42%	
Semi-rural	32%	
Rural	27%	

\* No greater metropolitan counties in Florida.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	37.8	
#		
Lesser Met.	38.0	
Adjacent	35.3	
Semi-rural	40.1	
Rural	35.6	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	27.9	
#		
Lesser Met.	20.7	
Adjacent	26.1	
Semi-rural	31.5	
Rural	34.0	

Decrease from average rate in 1941-45

ALL COUNTIES	21%	
#		
Lesser Met.	22%	
Adjacent	21%	
Semi-rural	19%	
Rural	24%	

Decrease from average rate in 1941-45

ALL COUNTIES	29%	
#		
Lesser Met.	28%	
Adjacent	28%	
Semi-rural	32%	
Rural	23%	

\* No Greater metropolitan counties in Georgia.

INFANT MORTALITY

MATERNAL MORTALITY

Average rate in 1944-48

Average rate in 1944-48

ALL COUNTIES	<u>a/31.9</u>
•	
•	
Adjacent	29.6
Semi-rural	32.1
Rural	31.6

ALL COUNTIES	<u>a/14.9</u>
•	
•	
Adjacent	8.5
Semi-rural	15.2
Rural	15.3

Decrease from average rate in 1941-45

Decrease from average rate in 1941-45

ALL COUNTIES	8%
•	
•	
Adjacent	<u>b/14%</u>
Semi-rural	9%
Rural	<u>b/3%</u>

ALL COUNTIES	37%
•	
•	
Adjacent	<u>b/57%</u>
Semi-rural	38%
Rural	<u>b/26%</u>

\* No greater or lesser metropolitan counties in Idaho  
a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	30.0	
Greater Met.	28.5	
Lesser Met.	31.4	
Adjacent	30.5	
Semi-rural	34.0	
Rural	37.6	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	12.9	
Greater Met.	12.0	
Lesser Met.	12.3	
Adjacent	13.4	
Semi-rural	15.8	
Rural	22.5	

Decrease from average rate in 1941-45

ALL COUNTIES	9%	
Greater Met.	4%	
Lesser Met.	10%	
Adjacent	11%	
Semi-rural	17%	
Rural	24%	

Decrease from average rate in 1941-45

ALL COUNTIES	36%	
Greater Met.	38%	
Lesser Met.	30%	
Adjacent	32%	
Semi-rural	36%	
Rural	b/ 26%	.....

b/ Decrease in rate not statistically significant.

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/ 32.2	
Greater Met.	32.3	
Lesser Met.	32.0	
Adjacent	31.6	
Semi-rural	33.0	
Rural	30.2	

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	13.6	
Greater Met.	19.4	
Lesser Met.	12.8	
Adjacent	13.6	
Semi-rural	12.0	
Rural	19.0	

Decrease from average rate in 1941-45

ALL COUNTIES	14%	
Greater Met.	14%	
Lesser Met.	13%	
Adjacent	10%	
Semi-rural	16%	
Rural	17%	

Decrease from average rate in 1941-45

ALL COUNTIES	36%	
Greater Met.	b/ 11%	.....
Lesser Met.	39%	
Adjacent	39%	
Semi-rural	42%	
Rural	b/ 9%	.....

a/ Variations from this figure in rates shown for county groups are not statistically significant.  
 b/ Decrease in rate not statistically significant.

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	29.4	
*		
Lesser Met.	30.7	
Adjacent	27.9	
Semi-rural	29.9	
Rural	28.0	

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/12.0	
*		
Lesser Met.	13.0	
Adjacent	9.9	
Semi-rural	13.2	
Rural	10.0	

Decrease from average rate in 1941-45

ALL COUNTIES	12%	
*		
Lesser Met.	8%	
Adjacent	13%	
Semi-rural	14%	
Rural	13%	

Decrease from average rate in 1941-45

ALL COUNTIES	39%	
*		
Lesser Met.	33%	
Adjacent	47%	
Semi-rural	34%	
Rural	52%	

\* No Greater metropolitan counties in Iowa.  
a/ Variations from this figure in rates shown for county groups are not statistically significant.

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	30.1	
*		
Lesser Met.	30.8	
Adjacent	28.0	
Semi-rural	31.5	
Rural	28.2	

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/13.7	
*		
Lesser Met.	13.7	
Adjacent	15.4	
Semi-rural	14.8	
Rural	9.3	

Decrease from average rate in 1941-45

ALL COUNTIES	13%	
*		
Lesser Met.	13%	
Adjacent	13%	
Semi-rural	14%	
Rural	12%	

Decrease from average rate in 1941-45

ALL COUNTIES	39%	
*		
Lesser Met.	28%	
Adjacent	36%	
Semi-rural	37%	
Rural	60%	

\* No greater metropolitan counties in Kansas.

a/ Variations from this figure in rates shown for county groups are not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	41.7	
*		
Lesser Met.	39.3	
Adjacent	42.6	
Semi-rural	45.3	
Rural	38.8	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/</u> 20.1	
*		
Lesser Met.	17.8	
Adjacent	18.9	
Semi-rural	21.9	
Rural	20.0	

Decrease from average rate in 1941-45

ALL COUNTIES	17%	
*		
Lesser Met.	16%	
Adjacent	19%	
Semi-rural	17%	
Rural	17%	

Decrease from average rate in 1941-45

ALL COUNTIES	28%	
*		
Lesser Met.	27%	
Adjacent	<u>b/</u> 21%	.....
Semi-rural	28%	
Rural	30%	

\* No greater metropolitan counties in Kentucky.  
a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	40.0
*	
Lesser Met.	35.9
Adjacent	42.3
Semi-rural	42.9
Rural	39.3

Decrease from average rate in 1941-45

ALL COUNTIES	16%
*	
Lesser Met.	22%
Adjacent	12%
Semi-rural	14%
Rural	14%

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	22.4
*	
Lesser Met.	14.9
Adjacent	23.3
Semi-rural	26.9
Rural	28.3

Decrease from average rate in 1941-45

ALL COUNTIES	34%
*	
Lesser Met.	46%
Adjacent	33%
Semi-rural	25%
Rural	30%

\* No greater metropolitan counties in Louisiana.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	39.7
*	
Lesser Met.	37.6
Adjacent	35.2
Semi-rural	42.9
Rural	39.5

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/</u> 16.7
*	
Lesser Met.	14.9
Adjacent	12.8
Semi-rural	18.9
Rural	21.6

Decrease from average rate in 1941-45

ALL COUNTIES	18%
*	
Lesser Met.	20%
Adjacent	22%
Semi-rural	17%
Rural	<u>b/</u> 1%

Decrease from average rate in 1941-45

ALL COUNTIES	31%
*	
Lesser Met.	<u>b/</u> 28%
Adjacent	<u>b/</u> 32%
Semi-rural	33%
Rural	<u>b/</u> 20%

\* No greater metropolitan counties in Maine.

a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	34.4
Greater Met.	32.5
*	
Adjacent	36.8
Semi-rural	40.9
Rural	40.2

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	12.5
Greater Met.	11.4
*	
Adjacent	14.9
Semi-rural	15.4
Rural	16.7

Decrease from average rate in 1941-45

ALL COUNTIES	21%
Greater Met.	19%
*	
Adjacent	25%
Semi-rural	23%
Rural	29%

Decrease from average rate in 1941-45

ALL COUNTIES	35%
Greater Met.	35%
*	
Adjacent	37%
Semi-rural	35%
Rural	<u>b/26%</u>

\* No lesser metropolitan counties in Maryland.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/29.8
Greater Met.	29.5
Lesser Met.	30.7
Adjacent	29.3
Semi-rural	26.9
Rural	38.6

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/12.5
Greater Met.	12.7
Lesser Met.	12.3
Adjacent	12.3
Semi-rural	11.8
Rural	18.4

Decrease from average rate in 1941-45

ALL COUNTIES	10%
Greater Met.	9%
Lesser Met.	11%
Adjacent	17%
Semi-rural	b/12%
Rural	c/(4%)

Decrease from average rate in 1941-45

ALL COUNTIES	41%
Greater Met.	40%
Lesser Met.	41%
Adjacent	43%
Semi-rural	b/41%
Rural	b/11%

- a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.  
c/ Rate increased, but change not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	33.2	
Greater Met.	31.9	
Lesser Met.	32.5	
Adjacent	34.5	
Semi-rural	35.6	
Rural	40.5	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/12.0	
Greater Met.	12.5	
Lesser Met.	10.8	
Adjacent	10.9	
Semi-rural	13.5	
Rural	16.0	

Decrease from average rate in 1941-45

ALL COUNTIES	12%	
Greater Met.	8%	
Lesser Met.	11%	
Adjacent	16%	
Semi-rural	17%	
Rural	11%	

Decrease from average rate in 1941-45

ALL COUNTIES	38%	
Greater Met.	39%	
Lesser Met.	39%	
Adjacent	34%	
Semi-rural	37%	
Rural	44%	

a/ Variations from this figure in rates shown for county groups are not statistically significant.

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	29.1
*	
Lesser Met.	27.2
Adjacent	27.7
Semi-rural	31.2
Rural	29.8

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	9.4
*	
Lesser Met.	8.4
Adjacent	11.8
Semi-rural	9.9
Rural	10.2

Decrease from average rate in 1941-45

ALL COUNTIES	7%
*	
Lesser Met.	b/ 5%
Adjacent	b/ 11%
Semi-rural	7%
Rural	13%

Decrease from average rate in 1941-45

ALL COUNTIES	40%
*	
Lesser Met.	40%
Adjacent	40%
Semi-rural	38%
Rural	45%

\* No greater metropolitan counties in Minnesota.

b/ Decrease in rate not statistically significant.

INFANT MORTALITY

MATERNAL MORTALITY

Average rate in 1944-48

Average rate in 1944-48

ALL COUNTIES	39.2
* Lesser Met.	43.3
Adjacent	36.4
Semi-rural	40.9
Rural	37.1

ALL COUNTIES	a/31.5
* Lesser Met.	34.5
Adjacent	33.2
Semi-rural	31.6
Rural	30.1

Decrease from average rate in 1941-45

Decrease from average rate in 1941-45

ALL COUNTIES	16%
* Lesser Met.	15%
Adjacent	19%
Semi-rural	14%
Rural	19%

ALL COUNTIES	27%
* Lesser Met.	b/28%
Adjacent	b/14%
Semi-rural	32%
Rural	24%

\* No greater metropolitan counties in Mississippi.  
a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	33.9	
Greater Met.	31.3	
Lesser Met.	34.4	
Adjacent	30.7	
Semi-rural	37.6	
Rural	33.5	

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	16.8	
Greater Met.	13.2	
Lesser Met.	15.3	
Adjacent	15.8	
Semi-rural	20.5	
Rural	20.4	

Decrease from average rate in 1941-45

ALL COUNTIES	16%	
Greater Met.	9%	
Lesser Met.	7%	
Adjacent	16%	
Semi-rural	21%	
Rural	23%	

Decrease from average rate in 1941-45

ALL COUNTIES	34%	
Greater Met.	36%	
Lesser Met.	27%	
Adjacent	37%	
Semi-rural	34%	
Rural	31%	

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/33.3</u>
•	
•	
•	
Semi-rural	33.7
Rural	32.6

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/12.6</u>
•	
•	
•	
Semi-rural	12.7
Rural	12.2

Decrease from average rate in 1941-45

ALL COUNTIES	8%
•	
•	
•	
Semi-rural	<u>b/6%</u>
Rural	11%

Decrease from average rate in 1941-45

ALL COUNTIES	29%
•	
•	
•	
Semi-rural	<u>b/27%</u>
Rural	<u>b/35%</u>

\* No greater metropolitan, lesser metropolitan, or adjacent counties in Montana.

a/ Variations from this figure in rates shown for county groups are not statistically significant.

b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	29.1
*	
Lesser Met.	28.5
Adjacent	26.0
Semi-rural	31.4
Rural	28.2

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/11.8
*	
Lesser Met.	9.4
Adjacent	12.7
Semi-rural	12.6
Rural	13.1

Decrease from average rate in 1941-45

ALL COUNTIES	12%
*	
Lesser Met.	12%
Adjacent	b/9%
Semi-rural	12%
Rural	13%

Decrease from average rate in 1941-45

ALL COUNTIES	35%
*	
Lesser Met.	44%
Adjacent	b/23%
Semi-rural	32%
Rural	33%

\* No greater metropolitan counties in Nebraska.

a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/41.1
*	
*	
*	
Semi-rural	41.0
Rural	41.5

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/17.2
*	
*	
*	
Semi-rural	16.0
Rural	20.5

Decrease from average rate in 1941-45

ALL COUNTIES	18%
*	
*	
*	
Semi-rural	22%
Rural	b/7%

Decrease from average rate in 1941-45

ALL COUNTIES	b/18%
*	
*	
*	
Semi-rural	b/8%
Rural	b/30%

\* No greater metropolitan, lesser metropolitan, or adjacent counties in Nevada.  
a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/32.3	
* Lesser Met.	34.5	
Adjacent	31.4	
Semi-rural	31.2	
Rural	32.7	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/15.3	
* Lesser Met.	20.9	
Adjacent	11.6	
Semi-rural	14.9	
Rural	6.8	

Decrease from average rate in 1941-45

ALL COUNTIES	17%	
* Lesser Met.	18%	
Adjacent	11%	
Semi-rural	21%	
Rural	32%	

Decrease from average rate in 1941-45

ALL COUNTIES	32%	
* Lesser Met.	b/9%	.....
Adjacent	52%	
Semi-rural	b/28%	.....
Rural	b/61%	.....

\* No greater metropolitan counties in New Hampshire.

a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	29.5
Greater Met.	28.5
Lesser Met.	36.7
Adjacent	32.4
*	
*	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	12.1
Greater Met.	11.6
Lesser Met.	17.9
Adjacent	12.6
*	
*	

Decrease from average rate in 1941-45

ALL COUNTIES	11%
Greater Met.	11%
Lesser Met.	14%
Adjacent	13%
*	
*	

Decrease from average rate in 1941-45

ALL COUNTIES	37%
Greater Met.	36%
Lesser Met.	33%
Adjacent	48%
*	
*	

\* No semi-rural or rural counties in New Jersey.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	79.8	//	_____
*			
*			
Adjacent	74.1	//	_____
Semi-rural	75.1	//	_____
Rural	97.7	//	_____

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/27.5	_____
*		
*		
Adjacent	25.1	_____
Semi-rural	25.4	_____
Rural	35.5	_____

Decrease from average rate in 1941-45

ALL COUNTIES	16%	_____
*		
*		
Adjacent	16%	_____
Semi-rural	18%	_____
Rural	10%	_____

Decrease from average rate in 1941-45

ALL COUNTIES	36%	_____
*		
*		
Adjacent	45%	_____
Semi-rural	40%	_____
Rural	b/20%	.....

\* No greater or lesser metropolitan counties in New Mexico.

a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	29.6	
Greater Met.	27.9	
Lesser Met.	31.1	
Adjacent	32.5	
Semi-rural	35.8	
*		

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/12.8	
Greater Met.	12.6	
Lesser Met.	12.8	
Adjacent	13.7	
Semi-rural	13.5	
*		

Decrease from average rate in 1941-45

ALL COUNTIES	9%	
Greater Met.	8%	
Lesser Met.	10%	
Adjacent	9%	
Semi-rural	13%	
*		

Decrease from average rate in 1941-45

ALL COUNTIES	38%	
Greater Met.	37%	
Lesser Met.	39%	
Adjacent	33%	
Semi-rural	42%	
*		

\* No rural counties in New York.  
a/Variations from this figure in rates shown for county groups are not statistically significant.

# NORTH CAROLINA

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	38.8	
#		
Lesser Met.	38.2	
Adjacent	35.5	
Semi-rural	41.4	
Rural	39.3	

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	22.3	
#		
Lesser Met.	19.8	
Adjacent	18.4	
Semi-rural	25.0	
Rural	26.7	

Decrease from average rate in 1941-45

ALL COUNTIES	20%	
#		
Lesser Met.	17%	
Adjacent	22%	
Semi-rural	21%	
Rural	20%	

Decrease from average rate in 1941-45

ALL COUNTIES	32%	
#		
Lesser Met.	28%	
Adjacent	43%	
Semi-rural	31%	
Rural	19%	

\* No greater metropolitan counties in North Carolina.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	31.7
*	
*	
*	
Semi-rural	33.1
Rural	30.4

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/11.8</u>
*	
*	
*	
Semi-rural	9.2
Rural	14.0

Decrease from average rate in 1941-45

ALL COUNTIES	9%
*	
*	
*	
Semi-rural	<u>b/3%</u>
Rural	14%

Decrease from average rate in 1941-45

ALL COUNTIES	42%
*	
*	
*	
Semi-rural	49%
Rural	36%

\* No greater metropolitan, lesser metropolitan, or adjacent counties in North Dakota.

a/ Variations from this figure in rates shown for county groups are not statistically significant.

b/ Decrease in rate not statistically significant.

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	32.7	
Greater Met.	28.5	
Lesser Met.	32.4	
Adjacent	34.3	
Semi-rural	36.2	
Rural	33.5	

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/13.4	
Greater Met.	13.1	
Lesser Met.	12.8	
Adjacent	14.0	
Semi-rural	14.4	
Rural	18.0	

Decrease from average rate in 1941-45

ALL COUNTIES	15%	
Greater Met.	12%	
Lesser Met.	13%	
Adjacent	19%	
Semi-rural	14%	
Rural	20%	

Decrease from average rate in 1941-45

ALL COUNTIES	37%	
Greater Met.	33%	
Lesser Met.	39%	
Adjacent	36%	
Semi-rural	32%	
Rural	b/31%	oooooooooooo

a/ Variations from this figure in rates shown for county groups are not statistically significant.  
 b/ Decrease in rate not statistically significant.

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	35.8	
*		
Lesser Met.	34.4	
Adjacent	35.1	
Semi-rural	37.3	
Rural	33.8	

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	17.9	
*		
Lesser Met.	13.1	
Adjacent	21.3	
Semi-rural	19.0	
Rural	18.5	

Decrease from average rate in 1941-45

ALL COUNTIES	16%	
*		
Lesser Met.	19%	
Adjacent	17%	
Semi-rural	14%	
Rural	14%	

Decrease from average rate in 1941-45

ALL COUNTIES	33%	
*		
Lesser Met.	30%	
Adjacent	29%	
Semi-rural	31%	
Rural	45%	

\* No Greater metropolitan counties in Oklahoma.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	27.0
*	
Lesser Met.	24.0
Adjacent	27.3
Semi-rural	29.3
Rural	31.3

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	10.2
*	
Lesser Met.	9.5
Adjacent	9.4
Semi-rural	9.6
Rural	24.4

Decrease from average rate in 1941-45

ALL COUNTIES	10%
*	
Lesser Met.	<u>b/4%</u>
Adjacent	<u>b/8%</u>
Semi-rural	16%
Rural	<u>b/3%</u>

Decrease from average rate in 1941-45

ALL COUNTIES	40%
*	
Lesser Met.	18%
Adjacent	<u>b/8%</u>
Semi-rural	58%
Rural	<u>b/16%</u>

\* No greater metropolitan counties in Oregon.

b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	33.6	
Greater Met.	33.2	
Lesser Met.	33.3	
Adjacent	34.4	
Semi-rural	34.7	
Rural	33.0	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/16.4	
Greater Met.	16.7	
Lesser Met.	16.1	
Adjacent	16.4	
Semi-rural	15.0	
Rural	14.9	

Decrease from average rate in 1941-45

ALL COUNTIES	14%	
Greater Met.	13%	
Lesser Met.	14%	
Adjacent	14%	
Semi-rural	15%	
Rural	24%	

Decrease from average rate in 1941-45

ALL COUNTIES	37%	
Greater Met.	35%	
Lesser Met.	40%	
Adjacent	37%	
Semi-rural	43%	
Rural	60%	

a/ Variations from this figure in rates shown for county groups are not statistically significant.

INFANT MORTALITY

MATERNAL MORTALITY

Average rate in 1944-48

Average rate in 1944-48

ALL COUNTIES	a/29.3
Lesser Met.	29.1
Adjacent	32.2

ALL COUNTIES	a/13.5
Lesser Met.	13.6
Adjacent	10.4

Decrease from average rate in 1941-45

Decrease from average rate in 1941-45

ALL COUNTIES	20%
Lesser Met.	20%
Adjacent	b/15%

ALL COUNTIES	28%
Lesser Met.	25%
Adjacent	b/64%

\* No greater metropolitan, semi-rural, or rural counties in Rhode Island.  
a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

MATERNAL MORTALITY

Average rate in 1944-48

Average rate in 1944-48

ALL COUNTIES	44.9	
*		
Lesser Met.	44.3	
Adjacent	42.1	
Semi-rural	46.2	
Rural	45.1	

ALL COUNTIES	29.5	
*		
Lesser Met.	22.3	
Adjacent	28.5	
Semi-rural	31.3	
Rural	34.9	

Decrease from average rate in 1941-45

Decrease from average rate in 1941-45

ALL COUNTIES	23%	
*		
Lesser Met.	17%	
Adjacent	29%	
Semi-rural	22%	
Rural	29%	

ALL COUNTIES	36%	
*		
Lesser Met.	43%	
Adjacent	40%	
Semi-rural	33%	
Rural	38%	

\* No Greater metropolitan counties in South Carolina.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	31.6
#	
#	
Adjacent	14.6
Semi-rural	30.4
Rural	33.6

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	12.1
#	
#	
Adjacent	7.7
Semi-rural	8.0
Rural	16.9

Decrease from average rate in 1941-45

ALL COUNTIES	13%
#	
#	
Adjacent	<u>b/24%</u>
Semi-rural	10%
Rural	15%

Decrease from average rate in 1941-45

ALL COUNTIES	35%
#	
#	
Adjacent	<u>b/72%</u>
Semi-rural	47%
Rural	<u>b/21%</u>

\* No greater or lesser metropolitan counties in South Dakota.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	40.6
*	
Lesser Met.	41.5
Adjacent	41.7
Semi-rural	42.0
Rural	34.8

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	20.6
*	
Lesser Met.	18.9
Adjacent	18.5
Semi-rural	23.1
Rural	21.5

Decrease from average rate in 1941-45

ALL COUNTIES	15%
*	
Lesser Met.	17%
Adjacent	13%
Semi-rural	15%
Rural	12%

Decrease from average rate in 1941-45

ALL COUNTIES	30%
*	
Lesser Met.	33%
Adjacent	34%
Semi-rural	26%
Rural	29%

\* No greater metropolitan counties in Tennessee.

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	45.4	
#		
Lesser Met.	42.5	
Adjacent	44.8	
Semi-rural	49.5	
Rural	41.2	

Decrease from average rate in 1941-45

ALL COUNTIES	13%	
#		
Lesser Met.	14%	
Adjacent	14%	
Semi-rural	11%	
Rural	12%	

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	18.7	
#		
Lesser Met.	15.5	
Adjacent	21.6	
Semi-rural	20.5	
Rural	22.0	

Decrease from average rate in 1941-45

ALL COUNTIES	33%	
#		
Lesser Met.	38%	
Adjacent	24%	
Semi-rural	31%	
Rural	30%	

\* No Greater metropolitan counties in Texas.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	28.6
*	
Lesser Met.	27.2
Adjacent	27.5
Semi-rural	36.0
Rural	31.7

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	10.5
*	
Lesser Met.	8.6
Adjacent	11.4
Semi-rural	11.6
Rural	16.4

Decrease from average rate in 1941-45

ALL COUNTIES	10%
*	
Lesser Met.	10%
Adjacent	<u>b/9%</u>
Semi-rural	<u>b/5%</u>
Rural	18%

Decrease from average rate in 1941-45

ALL COUNTIES	34%
*	
Lesser Met.	38%
Adjacent	<u>b/28%</u>
Semi-rural	<u>b/49%</u>
Rural	<u>b/17%</u>

\* No greater metropolitan counties in Utah.  
b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/</u> 33.4
*	
*	
Adjacent	30.8
Semi-rural	34.1
Rural	30.7

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/</u> 14.1
*	
*	
Adjacent	12.7
Semi-rural	14.4
Rural	12.9

Decrease from average rate in 1941-45

ALL COUNTIES	16%
*	
*	
Adjacent	<u>b/</u> 6%
Semi-rural	18%
Rural	<u>b/</u> 10%

Decrease from average rate in 1941-45

ALL COUNTIES	31%
*	
*	
Adjacent	<u>c/</u> (27%)
Semi-rural	34%
Rural	<u>b/</u> 23%

- \* No greater or lesser metropolitan counties in Vermont.
- a/ Variations from this figure in rates shown for county groups are not statistically significant.
- b/ Decrease in rate not statistically significant.
- c/ Rate increased, but change not statistically significant.

## INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	41.3	
Greater Met.	21.2	
Lesser Met.	39.1	
Adjacent	40.1	
Semi-rural	44.2	
Rural	47.1	

## MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	18.6	
Greater Met.	9.8	
Lesser Met.	18.4	
Adjacent	19.4	
Semi-rural	18.6	
Rural	21.2	

Decrease from average rate in 1941-45

ALL COUNTIES	20%	
Greater Met.	15%	
Lesser Met.	17%	
Adjacent	20%	
Semi-rural	20%	
Rural	20%	

Decrease from average rate in 1941-45

ALL COUNTIES	37%	
Greater Met.	b/35%	.....
Lesser Met.	41%	
Adjacent	29%	
Semi-rural	38%	
Rural	32%	

b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	31.2
* Lesser Met.	29.1
Adjacent	30.7
Semi-rural	35.2
Rural	34.4

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/11.7
* Lesser Met.	11.3
Adjacent	11.5
Semi-rural	13.1
Rural	10.1

Decrease from average rate in 1941-45

ALL COUNTIES	9%
* Lesser Met.	9%
Adjacent	b/7%
Semi-rural	12%
Rural	c/(2%)

Decrease from average rate in 1941-45

ALL COUNTIES	30%
* Lesser Met.	26%
Adjacent	b/28%
Semi-rural	34%
Rural	64%

\* No greater metropolitan counties in Washington.

a/ Variations from this figure in rates shown for county groups are not statistically significant.

b/ Decrease in rate not statistically significant.

c/ Rate increased, but change not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/43.8	
*		
Lesser Met.	43.6	
Adjacent	44.1	
Semi-rural	44.7	
Rural	41.2	

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	a/15.9	
*		
Lesser Met.	14.8	
Adjacent	16.8	
Semi-rural	16.1	
Rural	b/15.7	oooooooo

Decrease from average rate in 1941-45

ALL COUNTIES	19%	
*		
Lesser Met.	19%	
Adjacent	17%	
Semi-rural	20%	
Rural	19%	

Decrease from average rate in 1941-45

ALL COUNTIES	34%	
*		
Lesser Met.	39%	
Adjacent	38%	
Semi-rural	29%	
Rural	29%	

\* No Greater metropolitan counties in West Virginia.

a/ Variations from this figure in rates shown for county groups are not statistically significant.

b/ Decrease in rate not statistically significant.

INFANT MORTALITY

Average rate in 1944-48

ALL COUNTIES	29.6
* Lesser Met.	28.0
Adjacent	28.1
Semi-rural	31.1
Rural	33.4

MATERNAL MORTALITY

Average rate in 1944-48

ALL COUNTIES	<u>a/</u> 13.2
* Lesser Met.	12.6
Adjacent	11.2
Semi-rural	14.0
Rural	17.2

Decrease from average rate in 1941-45

ALL COUNTIES	10%
* Lesser Met.	<u>b/</u> 5%
Adjacent	10%
Semi-rural	14%
Rural	<u>b/</u> 11%

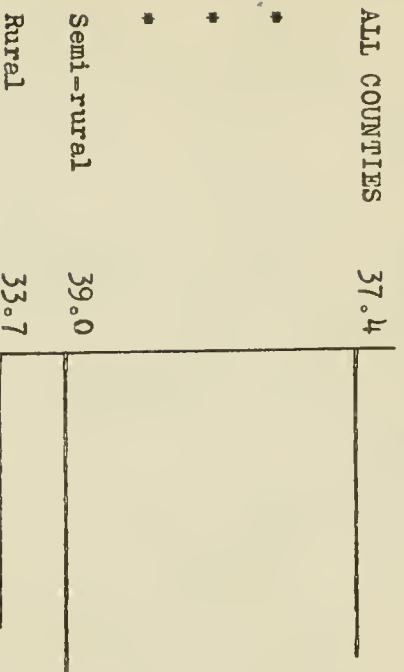
Decrease from average rate in 1941-45

ALL COUNTIES	29%
* Lesser Met.	25%
Adjacent	35%
Semi-rural	32%
Rural	<u>b/</u> 1%

\* No greater metropolitan counties in Wisconsin.  
a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

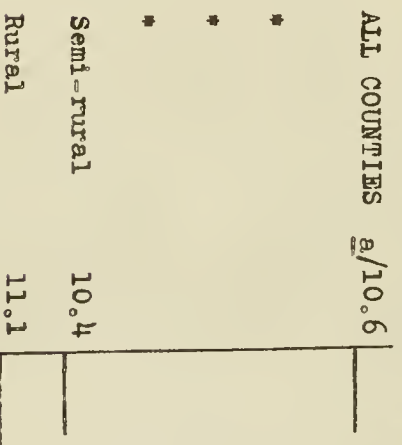
INFANT MORTALITY

Average rate in 1944-48

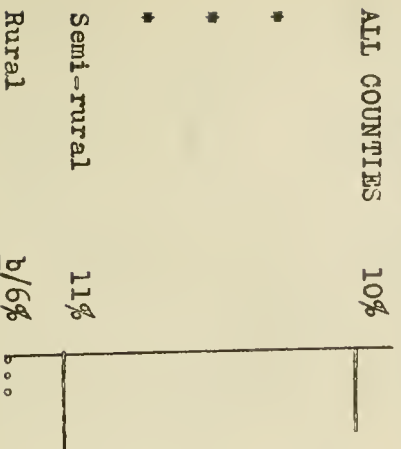


MATERNAL MORTALITY

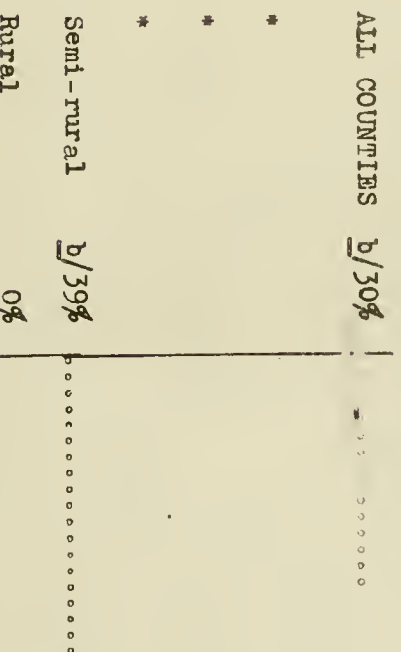
Average rate in 1944-48



Decrease from average rate in 1941-45



Decrease from average rate in 1941-45



\* No greater metropolitan, lesser metropolitan, or adjacent counties in Wyoming.  
a/ Variations from this figure in rates shown for county groups are not statistically significant.  
b/ Decrease in rate not statistically significant.

## CHILDREN'S BUREAU STATISTICAL SERIES

Bulletins in this series present analyses of periodic data useful to research, administrative, and informational specialists in the field of services for children. In these bulletins from time to time will appear data on the operations of public health and welfare programs, statistics on conditions of child life, and related source materials. Copies are available without charge. If you would like to receive future issues in this series, please send to the Children's Bureau a request that your name be placed on this mailing list.

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\* 9517.316 A. 1. 24  
Cough

CHILDREN'S BUREAU

STATISTICAL SERIES

NUMBER **13**

**Personnel  
in Public  
Child Welfare  
Programs**

**1951**



State and local public welfare agencies had enlarged their full-time professional child welfare staffs to an all-time high of nearly 4,500 by mid-1951 -- an increase of about 8 percent over June 1950. 2/ These professional employees were being aided by more than 1,350 clerical employees working full-time in the public child welfare programs. Services to children were also being provided by better than 3,600 general welfare workers, i.e. caseworkers and director-workers primarily concerned with the administration of public assistance programs who were spending some of their time in working with or on behalf of children. Full-time public child welfare workers were serving roughly 4 out of every 5 of the nearly 260,000 children receiving specialized child welfare services from public welfare agencies in June 1951. General welfare workers, who spent only part-time on child welfare programs, were responsible for about 1 in 5. This report is focused on the 4,465 full-time professional public child welfare employees.

7 out of 10 paid entirely from State and local funds.

Despite the use of additional Federal child welfare services funds, available as a result of the amendments to the Social Security Act enacted late in 1950, 70 percent of the full-time public child welfare employees were paid entirely from State and local funds. The number so paid in June 1951 was 3,138; the others (1,327) were paid in whole or part from Federal child welfare services funds. State and local funds paid for 73 percent of the caseworkers and 71 percent of the casework supervisors but only 45 percent of the consultants. The two States with the largest increases in the number of full-time child welfare employees during the year ending June 1951 -- California and Washington -- met the cost of the additional personnel almost entirely through the use of State or local funds. For the country as a whole, however, nearly 70 percent of the additional full-time persons on the payroll that month, as compared with the year before, were paid in whole or part from Federal child welfare services funds.

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1/ Report prepared by Mignon Sauber, Program Analysis Branch, Division of Research.

2/ See table 1 on page 6 for scope and limitations of data.

Public child welfare services greatly expanded since 1946.

In June 1951, the total number of full-time public child welfare employees exceeded those employed in June 1946 by 58 percent. <sup>3/</sup> Although caseworkers, the largest group among public child welfare employees, showed the greatest increase in number (roughly 1,100), percentagewise they have not increased to the same extent as supervisory and executive staffs. The number of caseworkers in 1951 was 53 percent greater than it had been in 1946 while the increase among supervisory, consultant and executive staffs was nearly 75 percent over the same period.

Strengthened supervisory and consultant staff over the 5-year period resulted mostly from the use of Federal child welfare services funds. Sixty percent of the additional supervisors and nearly 70 percent of the added consultants were paid from these funds. Even though the bulk of Federal child welfare services funds have been used for caseworkers, State and local funds were used to a greater extent than Federal funds to enlarge this group. State and local funds were also primarily responsible for the increase in the number of executives and specialists (psychologists, research personnel, etc.) in the public child welfare program.

One-third of the Nation's children live in areas where there are no full-time public child welfare workers.

By June 1951, 47 percent of the 3,187 counties of the United States and its territories had the services of full-time public child welfare workers. These 1,492 counties had full-time child welfare caseworkers (or director-workers) assigned exclusively to one county or covering several counties. About two-thirds of the children under 21 years of age in this country were living in these counties. <sup>4/</sup> Thus, nearly one child in 3 was living in an area in which there was no full-time public child welfare worker. These children may be helped by general welfare workers, primarily public assistance workers, or they may be out of reach of public child welfare services altogether.

More than 2 out of every 3 of the counties with full-time public child welfare services are predominantly rural. That is, in 1,039 out of the 1,492 counties with full-time child welfare workers, at least 50 percent of the population are living in rural places as classified by the Bureau of the Census. Of course, most of the

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<sup>3/</sup> All comparisons between 1946 and 1951 are for 48 States for which comparable data are available.

<sup>4/</sup> All data on child population based on 1940 Census. Age data for counties for 1950 are not yet available for all States.

counties in the country would be classified as rural under this definition. Furthermore, this is only a rough measure of the extent to which public child welfare services are reaching rural areas since some counties classified as urban under this definition may have large rural areas while some classified as rural contain towns or cities.

Even though most of the counties with full-time public child welfare services are rural, 58 percent of all rural counties in which live 22 percent of the Nation's children, are without such services. Fewer urban counties (35 percent) lack the services of full-time public child welfare workers. Only 12 percent of the children of the United States live in these counties.

#### Turnover continues high -- jobs go unfilled.

Nearly 1 out of every 3 public child welfare employees working on June 30, 1951 had come to the job within the preceding year. This preponderance of "new workers" is similar to the situation in 1949 and 1950.

Turnover was highest among caseworkers. Although caseworkers account for 75 percent of all public child welfare employees they constituted roughly 86 percent of the new employees during the year. Fortunately, the problem among supervisory and executive staff was not quite as great and this relative stability gives some continuity in agency leadership.

Many jobs remained unfilled. As in the preceding year, 1 job in 10 was vacant in June 1951. The difficulty in obtaining adequately qualified personnel was most acute for consultants, i.e. training consultant, district consultant, foster care consultant, etc. One out of every 6 consultant positions was vacant in June 1951.

Turnover and vacancies cannot help but result in a less effective child welfare program. Services to children may be interrupted while positions are vacant. Frequently service may be provided only for emergencies, if at all. Qualified staff are difficult to find, and when replacements are found, executives and supervisors must spend time in orienting the new staff. Furthermore, new workers must get to know the families and children in their service load before they can help them. Children in trouble need sustained help from professionally equipped and experienced personnel.

#### Low salaries continue.

One reason for the difficulty in recruiting and retaining qualified staff is the relatively low salaries offered to public child welfare employees. In June 1951, the median monthly salary for caseworkers was

\$247 -- a total of \$2,964 for the year. Although salaries were slightly better in 1951 than they had been a year before, they continued low in relation to the requirements of the job.

Low salaries deter young people from undertaking the professional training essential to child welfare work. More lucrative jobs are available in other fields for the individual with graduate study. Employees already in child welfare work move about in search of better paying positions and jobs remain vacant because salaries are too low to attract and hold qualified persons.

Service loads are smaller.

Smaller service loads permit more adequate child welfare casework service. That is, the number of children for whom a child welfare caseworker is responsible determines, in part, the quality of service that can be provided each child. On the average, a caseworker was responsible for 55 children in June 1951. States varied considerably in the workload assigned to child welfare caseworkers. For States with at least 50 public child welfare caseworkers, the averages were as follows:

<u>STATE</u>	<u>Median Number of Children in Service Load June 1951</u>
Tennessee.....	26
Michigan.....	32
Illinois.....	35
Kentucky.....	36
Louisiana.....	38
Minnesota.....	49
Texas.....	49
Connecticut.....	50
Virginia.....	51
Massachusetts.....	53
Washington.....	56
Missouri.....	59
Ohio.....	59
Pennsylvania.....	60
District of Columbia.....	61
Wisconsin.....	63
West Virginia.....	69
Indiana.....	70
California.....	78
North Carolina.....	79
Puerto Rico.....	97

Service loads at the end of 1951 were considerably smaller on the average than they had been in 1946. The median load had steadily decreased from 71 to 55 over the 5-year period. The decrease from 1950 to 1951 was from 59 to 55 children per worker.

Service loads must be small enough to permit workers time to provide appropriate care and service for each child -- to individualize needs as fully as possible within the function of the agency and the resources of the community. For the 310 workers (nearly 10 percent of all workers) in the country who must plan for more than 100 children, this is an almost impossible task. However, in 1946, 27 percent of the workers were responsible for at least 100 children. The steady reduction in the size of service loads and in the proportion of workers serving unreasonably large numbers of children is a promising trend.

As service-loads decrease and full-time public child welfare services become available in more areas, especially rural areas, the needs of children will be met more adequately. Efforts to raise salaries, to stabilize staff, and to increase the professional competence of staff will further insure that children get the kind of help they need.

Table 1.— EMPLOYEES IN THE PUBLIC CHILD WELFARE PROGRAMS, BY STATE AND TYPE OF POSITION, JUNE 1951 <sup>a/</sup>

State	Child welfare employees - devoting full time to CWS									General welfare workers - devoting some time to CWS		
	Total	Professional child welfare employees							Clerks	Total	Director-workers	Case-workers
		Total	Directors	Director-workers	Case-workers	Super-visors	Consult-ants	Special-ists				
Total.....	5,823	4,465	120	70	3,272	514	380	109	1,358	3,603	870	2,733
Alabama.....	64	57	1	—	41	3	11	1	7	384	38	346
Alaska.....	6	5	—	—	4	1	—	—	1	5	5	—
Arizona.....	36	30	1	—	25	1	3	—	6	3	3	—
Arkansas.....	40	30	1	—	21	2	6	—	10	23	22	1
California.....	b/ 170	127	3	—	70	4	48	2	43	37	1	36
Colorado.....	43	38	1	—	24	4	8	1	5	23	23	—
Connecticut....	193	138	7	4	115	11	1	—	55	1	—	1
Delaware.....	19	19	—	—	17	2	—	—	—	—	—	—
Dist. of Col...	96	70	1	—	50	12	—	7	26	2	—	2
Florida.....	65	44	1	—	29	9	5	—	21	c/ 459	—	459
Georgia.....	58	40	2	—	29	—	8	1	18	55	41	14
Hawaii.....	33	28	1	—	20	4	3	—	5	71	—	71
Idaho.....	9	8	1	—	5	—	2	—	1	41	14	27
Illinois.....	324	266	3	—	208	35	15	5	58	1	—	1
Indiana.....	215	179	1	—	151	21	6	—	36	147	46	101
Iowa.....	76	63	1	—	43	12	1	6	13	75	57	18
Kansas.....	49	33	2	—	17	3	11	—	16	2	—	2
Kentucky.....	b/ 98	69	2	1	52	—	11	3	29	—	—	—
Louisiana.....	103	74	1	—	53	12	8	—	29	b/ 1	—	1
Maine.....	66	46	7	—	38	—	—	1	20	1	—	1
Maryland.....	b/ 28	28	—	—	26	2	—	—	—	b/ —	—	—
Massachusetts..	254	192	4	—	158	20	3	7	62	3	2	1
Michigan.....	156	118	4	—	80	8	16	10	38	58	—	58
Minnesota.....	236	192	3	—	152	28	8	1	44	175	40	135
Mississippi....	102	60	2	—	47	8	3	—	42	239	66	173
Missouri.....	117	89	2	—	64	21	1	1	28	148	63	85
Montana.....	20	18	1	—	11	—	6	—	2	46	38	8
Nebraska.....	44	33	2	—	21	3	6	1	11	112	62	50
Nevada.....	8	8	—	—	6	1	1	—	—	—	—	—
New Hampshire..	20	18	1	—	15	2	—	—	2	17	—	17
New Jersey.....	19	12	1	7	2	—	—	2	7	134	—	134
New Mexico.....	41	28	1	—	20	5	1	1	13	13	9	4
New York.....	1,043	765	14	—	555	116	73	7	278	4	—	4
North Carolina..	98	85	1	—	63	4	9	8	13	328	49	279
North Dakota...	12	12	—	—	7	—	3	2	—	69	46	23
Ohio.....	421	315	15	38	197	33	8	24	106	83	26	57
Oklahoma.....	75	43	4	—	29	1	7	2	32	5	—	5
Oregon.....	86	63	3	—	44	9	7	—	23	59	14	45
Pennsylvania...	b/ 86	62	3	16	37	—	5	1	24	—	—	—
Puerto Rico....	101	100	2	—	71	20	7	—	1	54	54	—
Rhode Island...	54	41	1	—	29	5	3	3	13	—	—	—
South Carolina..	36	32	1	—	26	2	3	—	4	244	—	244
South Dakota...	29	25	1	—	19	3	1	1	4	4	—	4
Tennessee.....	113	80	1	—	60	4	12	3	33	83	32	51
Texas.....	132	79	2	—	50	16	11	—	53	131	—	131
Utah.....	26	23	1	—	17	3	2	—	3	b/ —	—	—
Vermont.....	26	22	1	—	21	—	—	—	4	—	—	—
Virgin Islands..	11	8	1	—	5	2	—	—	3	2	—	2
Virginia.....	135	112	3	—	87	13	8	1	23	190	92	98
Washington.....	156	150	1	—	128	16	5	—	6	16	5	11
West Virginia..	138	112	1	—	90	16	5	—	26	—	—	—
Wisconsin.....	222	162	5	4	112	17	17	7	60	31	6	25
Wyoming.....	15	14	1	—	11	—	2	—	1	24	16	8

<sup>a/</sup> As of the last pay-roll period in June, 1951.<sup>b/</sup> Report did not include all employees.<sup>c/</sup> Includes all public assistance workers who may carry child welfare services when there are such cases in their areas, although at any one time there will be some workers who are not providing child welfare services.

Table 2.— PUBLIC CHILD WELFARE EMPLOYEES, BY SOURCE OF FUNDS FOR SALARIES OR TRAVEL,  
BY STATE, JUNE 1951 <sup>a/</sup>

State	Paid entirely from State and local funds			Paid in whole or in part from Federal CWS funds		
	Total	Professional Employees	Clerical Employees	Total	Professional Employees	Clerical Employees
Total.....	4,355	3,138	1,217	1,468	1,327	141
Alabama.....	12	5	7	52	52	—
Alaska.....	—	—	—	6	5	1
Arizona.....	17	11	6	19	19	—
Arkansas.....	4	1	3	36	29	7
California.....	143	100	43	27	27	—
Colorado.....	28	23	5	15	15	—
Connecticut.....	166	117	49	27	21	6
Delaware.....	—	—	—	19	19	—
District of Columbia...	91	65	26	5	5	—
Florida.....	42	21	21	23	23	—
Georgia.....	22	16	6	36	24	12
Hawaii.....	25	20	5	8	8	—
Idaho.....	1	—	1	8	8	—
Illinois.....	302	244	58	22	22	—
Indiana.....	203	170	33	12	9	3
Iowa.....	56	43	13	20	20	—
Kansas.....	17	1	16	32	32	—
Kentucky.....	18	9	9	80	60	20
Louisiana.....	65	43	22	38	31	7
Maine.....	48	28	20	18	18	—
Maryland.....	—	—	—	28	28	—
Massachusetts.....	242	183	59	12	9	3
Michigan.....	118	85	33	38	33	5
Minnesota.....	218	180	38	18	12	6
Mississippi.....	42	—	42	60	60	—
Missouri.....	70	42	28	47	47	—
Montana.....	7	5	2	13	13	—
Nebraska.....	33	24	9	11	9	2
Nevada.....	—	—	—	8	8	—
New Hampshire.....	6	4	2	14	14	—
New Jersey.....	4	—	4	15	12	3
New Mexico.....	28	15	13	13	13	—
New York.....	1,018	745	273	25	20	5
North Carolina.....	20	13	7	78	72	6
North Dakota.....	—	—	—	12	12	—
Ohio.....	391	286	105	30	29	1
Oklahoma.....	34	5	29	41	38	3
Oregon.....	65	42	23	21	21	—
Pennsylvania.....	32	12	20	54	50	4
Puerto Rico.....	37	36	1	64	64	—
Rhode Island.....	45	32	13	9	9	—
South Carolina.....	5	4	1	31	28	3
South Dakota.....	7	3	4	22	22	—
Tennessee.....	66	33	33	47	47	—
Texas.....	47	24	23	85	55	30
Utah.....	11	8	3	15	15	—
Vermont.....	13	9	4	13	13	—
Virgin Islands.....	—	—	—	11	8	3
Virginia.....	82	63	19	53	49	4
Washington.....	138	132	6	18	18	—
West Virginia.....	121	95	26	17	17	—
Wisconsin.....	188	134	54	34	28	6
Wyoming.....	7	7	—	8	7	1

<sup>a/</sup> For scope and limitations of data, see table 1.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 3.— PUBLIC CHILD WELFARE EMPLOYEES IN PROFESSIONAL POSITIONS, BY SOURCE OF FUNDS FOR SALARIES OR TRAVEL, BY STATE AND TYPE OF POSITION, JUNE 1951 <sup>a/</sup>

State	Paid entirely from State and local funds						Paid in whole or in part from Federal CWS funds					
	Total	Directors	Case-workers b/	Super- visors	Consult- ants	Special- ists	Total	Directors	Case- workers c/	Super- visors	Consult- ants	Special- ists
Total	3,138	88	2,454	363	170	63	1,327	32	883	151	210	46
Alabama.....	5	1	1	3	—	—	52	—	40	—	11	1
Alaska.....	—	—	—	—	—	—	5	—	4	1	—	—
Arizona.....	11	1	10	—	—	—	19	—	15	1	3	—
Arkansas.....	1	—	—	—	1	—	29	1	21	2	5	—
California.....	100	3	57	—	38	2	27	—	13	4	10	—
Colorado.....	23	1	22	—	—	—	15	—	2	4	8	1
Connecticut....	117	6	100	10	1	—	21	1	19	1	—	—
Delaware.....	—	—	—	—	—	—	19	—	17	2	—	—
Dist. of Col....	65	1	50	7	—	7	5	—	—	5	—	—
Florida.....	21	1	16	1	3	—	23	—	13	8	2	—
Georgia.....	16	1	14	—	—	1	24	1	15	—	8	—
Hawaii.....	20	—	18	2	—	—	8	1	2	2	3	—
Idaho.....	—	—	—	—	—	—	8	1	5	—	2	—
Illinois.....	244	2	196	27	14	5	22	1	12	8	1	—
Indiana.....	170	1	148	19	2	—	9	—	3	2	4	—
Iowa.....	43	1	33	3	—	6	20	—	10	9	1	—
Kansas.....	1	1	—	—	—	—	32	1	17	3	11	—
Kentucky.....	9	1	8	—	—	—	60	1	45	—	11	3
Louisiana.....	43	1	31	10	1	—	31	—	22	2	7	—
Maine.....	28	5	23	—	—	—	18	2	15	—	—	1
Maryland.....	—	—	—	—	—	—	28	—	26	2	—	—
Massachusetts..	183	4	158	18	2	1	9	—	—	2	1	6
Michigan.....	85	4	61	8	6	6	33	—	19	—	10	4
Minnesota.....	180	3	147	27	3	—	12	—	5	1	5	1
Mississippi....	—	—	—	—	—	—	60	2	47	8	3	—
Missouri.....	42	1	37	3	—	1	47	1	27	18	1	—
Montana.....	5	1	4	—	—	—	13	—	7	—	6	—
Nebraska.....	24	—	21	3	—	—	9	2	—	—	6	1
Nevada.....	—	—	—	—	—	—	8	—	6	1	1	—
New Hampshire..	4	—	3	1	—	—	14	1	12	1	—	—
New Jersey.....	—	—	—	—	—	—	12	1	9	—	—	2
New Mexico.....	15	—	14	—	—	1	13	—	6	5	1	—
New York.....	745	13	552	113	60	7	20	1	3	3	13	—
North Carolina..	13	1	7	1	3	1	72	—	56	3	6	7
North Dakota...	—	—	—	—	—	—	12	—	7	—	3	2
Ohio.....	286	14	225	32	2	13	29	1	10	1	6	11
Oklahoma.....	5	1	1	—	2	1	38	3	28	1	5	1
Oregon.....	42	1	33	5	3	—	21	2	11	4	4	—
Pennsylvania...	12	—	12	—	—	—	50	3	41	—	5	1
Puerto Rico....	36	1	27	8	—	—	64	1	44	12	7	—
Rhode Island...	32	1	24	2	3	2	9	—	5	3	—	1
South Carolina..	4	1	2	1	—	—	28	—	24	1	3	—
South Dakota...	3	1	1	—	—	1	22	—	18	3	1	—
Tennessee.....	33	1	21	2	6	3	47	—	39	2	6	—
Texas.....	24	2	9	10	3	—	55	—	41	6	8	—
Utah.....	8	1	6	—	1	—	15	—	11	3	1	—
Vermont.....	9	1	8	—	—	—	13	—	13	—	—	—
Virgin Islands..	—	—	—	—	—	—	2	1	5	2	—	—
Virginia.....	63	2	52	7	1	1	49	1	35	6	7	—
Washington.....	132	1	115	14	2	—	18	—	13	2	3	—
West Virginia..	95	1	80	12	2	—	17	—	10	4	3	—
Wisconsin.....	134	5	100	14	11	4	28	—	16	3	6	3
Wyoming.....	7	—	7	—	—	—	7	1	4	—	2	—

a/ For scope and limitations of data, see table 1.

b/ Includes 40 director-workers.

c/ Includes 30 director-workers.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 4.— PUBLIC CHILD WELFARE EMPLOYEES IN PROFESSIONAL POSITIONS, BY STATE, AND BY SOURCE OF FUNDS FOR SALARIES OR TRAVEL, JUNE 1950 and 1951

State	Total employees		Employees whose salaries or travel funds came from—			
			State and local funds entirely		Federal CWS funds (all or part)	
	1951	1950	1951	1950	1951	1950
Total.....	4,465	4,146	3,138	3,038	1,327	1,108
Alabama.....	57	51	5	4	52	47
Alaska.....	5	4	—	—	5	4
Arizona.....	30	18	11	7	19	11
Arkansas.....	30	30	1	1	29	29
California..a/...	127	91	100	61	27	30
Colorado.....	38	34	23	22	15	12
Connecticut.....	138	125	117	111	21	14
Delaware.....	19	16	—	—	19	16
Dist. of Col.....	70	71	65	67	5	4
Florida.....	44	44	21	22	23	22
Georgia.....	40	46	16	15	24	31
Hawaii.....	28	28	20	20	8	8
Idaho.....	8	8	—	—	8	8
Illinois.....	266	243	244	211	22	32
Indiana.....	179	187	170	176	9	11
Iowa.....	63	50	43	32	20	18
Kansas.....	33	25	1	—	32	25
Kentucky.....	b/ 69	73	b/ 9	34	60	39
Louisiana.....	74	70	43	47	31	23
Maine.....	46	44	28	34	18	10
Maryland..a/.....	28	18	—	—	28	18
Massachusetts....	192	174	183	171	9	3
Michigan.....	118	108	85	88	33	20
Minnesota.....	192	196	180	170	12	26
Mississippi.....	60	56	—	—	60	56
Missouri.....	89	78	42	47	47	c/ 31
Montana.....	18	17	5	5	13	12
Nebraska.....	33	36	24	26	9	10
Nevada.....	8	5	—	—	8	5
New Hampshire....	18	14	4	7	14	7
New Jersey.....	12	10	—	—	12	10
New Mexico.....	28	23	15	12	13	11
New York.....	765	750	745	737	20	13
North Carolina...	85	82	13	13	72	69
North Dakota.....	12	11	—	1	12	10
Ohio.....	315	305	286	279	29	26
Oklahoma.....	43	47	5	22	38	25
Oregon.....	63	53	42	39	21	14
Pennsylvania..a/..	62	58	12	11	50	47
Puerto Rico.....	100	87	36	39	64	48
Rhode Island.....	41	40	32	32	9	8
South Carolina...	32	35	4	4	28	31
South Dakota.....	25	21	3	4	22	17
Tennessee.....	80	68	33	30	47	38
Texas.....	79	67	24	24	55	43
Utah.....	23	23	8	11	15	12
Vermont.....	22	17	9	8	13	9
Virgin Islands...	8	6	—	—	8	6
Virginia.....	112	98	63	59	49	39
Washington.....	150	108	132	94	18	14
West Virginia....	112	114	95	101	17	13
Wisconsin.....	162	156	134	136	28	20
Wyoming.....	14	7	7	4	7	3

a/ Report for 1950 and 1951 did not include all full-time child welfare employees paid entirely from local funds.

b/ Report for 1951 did not include all full-time child welfare employees paid from local funds.

c/ In June, 1950 a pay roll adjustment reduced the number of employees paid from Federal CWS funds to keep expenditures of Federal funds within the amount available for the fiscal year.

Note: This table includes only employees who devoted full time to the child welfare service program.

Table 5.— VACANT CHILD WELFARE POSITIONS IN THE PUBLIC WELFARE PROGRAMS, BY STATE  
AND TYPE OF POSITION, JUNE 1951 <sup>a/</sup>

State	Total	Professional child welfare positions						Clerks
		Total	Directors	Caseworkers <sup>b/</sup>	Supervisors	Consultants	Specialists	
Total.....	663	562	8	425	45	76	8	101
Alabama.....	4	4	—	2	—	2	—	—
Alaska.....	1	1	—	1	—	—	—	—
Arizona.....	—	—	—	—	—	—	—	—
Arkansas.....	13	13	—	9	—	4	—	—
California.....	9	9	1	7	—	1	—	—
Colorado.....	7	7	—	6	—	1	—	—
Connecticut.....	20	15	1	13	—	1	—	5
Delaware.....	2	2	—	2	—	—	—	—
District of Columbia..	9	3	—	2	1	—	—	6
Florida.....	10	8	—	4	3	1	—	2
Georgia.....	30	27	—	23	—	4	—	3
Hawaii.....	9	9	—	6	2	1	—	—
Idaho.....	10	10	—	8	—	2	—	—
Illinois.....	33	31	1	26	2	1	1	2
Indiana.....	21	20	2	12	1	5	—	1
Iowa.....	14	12	—	8	3	1	—	2
Kansas.....	9	8	—	4	1	3	—	1
Kentucky.....	1	1	—	—	—	1	—	—
Louisiana.....	14	13	—	11	—	2	—	1
Maine.....	3	3	1	2	—	—	—	—
Maryland.....	5	5	—	4	1	—	—	—
Massachusetts.....	6	3	—	—	2	—	1	3
Michigan.....	12	7	—	7	—	—	—	5
Minnesota.....	10	10	—	7	1	2	—	—
Mississippi.....	31	21	—	19	2	—	—	10
Missouri.....	15	14	—	11	3	—	—	1
Montana.....	6	6	1	4	—	1	—	—
Nebraska.....	2	2	—	1	—	1	—	—
Nevada.....	3	3	—	2	1	—	—	—
New Hampshire.....	—	—	—	—	—	—	—	—
New Jersey.....	—	—	—	—	—	—	—	—
New Mexico.....	4	4	—	3	—	—	1	—
New York.....	106	63	—	38	5	20	—	43
North Carolina.....	33	32	—	31	—	—	1	1
North Dakota.....	8	8	1	4	—	2	1	—
Ohio.....	23	15	—	13	2	—	—	8
Oklahoma.....	20	20	—	12	1	6	1	—
Oregon.....	8	8	—	1	3	3	1	—
Pennsylvania.....	16	15	—	11	2	2	—	1
Puerto Rico.....	33	33	—	30	3	—	—	—
Rhode Island.....	2	2	—	1	1	—	—	—
South Carolina.....	7	7	—	7	—	—	—	—
South Dakota.....	4	4	—	3	1	—	—	—
Tennessee.....	13	10	—	8	—	2	—	3
Texas.....	13	11	—	10	1	—	—	2
Utah.....	—	—	—	—	—	—	—	—
Vermont.....	3	3	—	2	—	1	—	—
Virgin Islands.....	—	—	—	—	—	—	—	—
Virginia.....	18	18	—	14	—	3	1	—
Washington.....	21	21	—	19	1	1	—	—
West Virginia.....	5	5	—	4	1	—	—	—
Wisconsin.....	17	16	—	13	1	2	—	1
Wyoming.....	—	—	—	—	—	—	—	—

<sup>a/</sup> For scope and limitations of data, see table 1.

<sup>b/</sup> Includes 5 director-workers.

Note: This table includes only vacant positions to be filled by employees who devote full time to child welfare.

Table 6.— NUMBER OF ACCESSIONS AND SEPARATIONS OF PUBLIC CHILD WELFARE EMPLOYEES,  
BY STATE AND TYPE OF POSITION, JUNE 1951 a/

State	Accessions				Separations			
	Total	Professional child welfare employees		Clerical employees	Total	Professional child welfare employees		Clerical employees
		Total	Case- workers b/			Total	Case- workers c/	
Total.....	2,054	1,458	1,256	596	1,605	1,108	951	497
Alabama.....	35	25	23	10	29	19	17	10
Alaska.....	2	1	—	1	—	—	—	—
Arizona.....	19	17	16	2	6	5	4	1
Arkansas.....	15	10	9	5	15	10	9	5
California.....	93	67	31	26	41	31	25	10
Colorado.....	17	16	13	1	13	12	8	1
Connecticut....	57	43	40	14	39	30	27	9
Delaware.....	5	5	5	—	2	2	2	—
Dist. of Col...	20	12	11	8	26	13	8	13
Florida.....	27	16	15	11	27	16	11	11
Georgia.....	19	12	11	7	22	17	16	5
Hawaii.....	3	3	2	—	3	3	3	—
Idaho.....	4	3	2	1	4	3	3	1
Illinois.....	111	94	85	17	85	71	63	14
Indiana.....	55	43	38	12	65	51	43	14
Iowa.....	32	27	22	5	22	14	11	8
Kansas.....	22	15	14	7	12	7	6	5
Kentucky.....	56	46	40	10	33	22	18	11
Louisiana.....	55	37	37	18	44	33	30	11
Maine.....	26	12	10	14	24	10	8	14
Maryland.....	20	20	20	—	9	9	9	—
Massachusetts..	51	33	28	18	31	12	12	19
Michigan.....	43	31	22	12	32	22	12	10
Minnesota.....	82	58	54	24	107	62	57	45
Mississippi....	67	27	25	40	52	23	23	29
Missouri.....	37	25	25	12	25	14	14	11
Montana.....	11	6	5	5	10	5	2	5
Nebraska.....	20	12	10	8	24	15	12	9
Nevada.....	3	3	2	—	—	—	—	—
New Hampshire..	6	5	4	1	1	1	—	—
New Jersey.....	6	4	3	2	2	2	1	—
New Mexico.....	20	12	12	8	12	7	6	5
New York.....	219	136	119	83	183	122	106	61
North Carolina..	42	32	28	10	36	29	27	7
North Dakota...	4	4	2	—	4	3	2	1
Ohio.....	146	100	82	46	116	88	71	28
Oklahoma.....	31	16	14	15	30	21	18	9
Oregon.....	35	26	21	9	22	15	12	7
Pennsylvania...	29	21	18	8	28	17	12	11
Puerto Rico....	34	34	30	—	21	21	16	—
Rhode Island...	16	13	12	3	15	12	10	3
South Carolina..	12	10	10	2	13	13	13	—
South Dakota...	14	13	11	1	12	11	10	1
Tennessee.....	51	31	23	20	36	19	18	17
Texas.....	68	27	24	41	46	16	11	30
Utah.....	5	5	4	—	5	5	4	—
Vermont.....	8	8	8	—	3	3	3	—
Virgin Islands..	6	4	2	2	2	1	—	1
Virginia.....	76	63	58	13	60	49	47	11
Washington.....	85	80	75	5	38	38	36	—
West Virginia..	51	41	39	10	52	43	40	9
Wisconsin.....	75	46	34	29	65	40	34	25
Wyoming.....	8	8	8	—	1	1	1	—

a/ Accessions and separations exclude employees who were separated but returned within the reporting period. For scope and limitations of data, see table 1.

b/ Includes 15 director-workers.

c/ Includes 11 director-workers.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 7.— PUBLIC CHILD WELFARE CASEWORKERS, BY STATE AND MONTHLY SALARY RATE, JUNE 1951 <sup>a/</sup>

State	Total caseworkers b/	Caseworkers receiving—							
		Less than \$175	\$175- 199	\$200- 224	\$225- 249	\$250- 274	\$275- 299	\$300- 324	\$325 or more
Total.....	3,342	206	258	632	651	615	482	269	229
Alabama.....	41	4	9	14	13	1	—	—	—
Alaska.....	4	—	—	—	—	—	—	—	4
Arizona.....	25	—	—	—	4	13	5	3	—
Arkansas.....	21	3	6	9	3	—	—	—	—
California.....	70	—	—	3	5	8	10	12	32
Colorado.....	24	—	—	1	6	10	3	3	1
Connecticut.....	119	—	—	40	28	23	25	2	1
Delaware.....	17	—	5	2	5	1	4	—	—
Dist. of Col.....	50	—	—	—	—	—	—	16	34
Florida.....	29	—	1	11	17	—	—	—	—
Georgia.....	29	—	5	15	4	5	—	—	—
Hawaii.....	20	—	—	—	1	7	5	5	2
Idaho.....	5	—	—	—	—	2	—	3	—
Illinois.....	208	3	1	60	39	43	61	1	—
Indiana.....	151	9	38	38	20	46	—	—	—
Iowa.....	43	1	9	10	9	12	2	—	—
Kansas.....	17	—	1	2	11	2	—	1	—
Kentucky.....	53	—	—	34	8	9	1	1	—
Louisiana.....	53	—	1	5	8	20	4	7	8
Maine.....	38	—	—	—	23	15	—	—	—
Maryland.....	26	9	4	13	—	—	—	—	—
Massachusetts....	158	—	—	1	1	30	116	10	—
Michigan.....	80	—	—	—	5	13	9	19	34
Minnesota.....	152	—	—	2	16	40	27	28	39
Mississippi.....	47	11	13	13	3	7	—	—	—
Missouri.....	64	2	19	12	9	1	13	8	—
Montana.....	11	—	—	3	4	1	3	—	—
Nebraska.....	21	6	2	1	8	3	1	—	—
Nevada.....	6	—	—	—	—	1	3	—	2
New Hampshire....	15	—	—	3	8	3	1	—	—
New Jersey.....	9	—	1	2	3	2	1	—	—
New Mexico.....	20	—	1	10	1	4	1	3	—
New York.....	555	7	37	101	171	118	44	71	6
North Carolina...	63	—	—	39	24	—	—	—	—
North Dakota.....	7	—	—	—	—	3	2	—	2
Ohio.....	235	23	31	40	44	46	30	12	9
Oklahoma.....	29	4	2	8	6	9	—	—	—
Oregon.....	44	—	—	—	1	23	12	8	—
Pennsylvania.....	53	1	7	18	6	13	5	1	2
Puerto Rico.....	71	71	—	—	—	—	—	—	—
Rhode Island.....	29	—	6	—	11	5	3	4	—
South Carolina...	26	3	15	8	—	—	—	—	—
South Dakota.....	19	—	7	2	3	3	3	1	—
Tennessee.....	60	—	—	28	27	5	—	—	—
Texas.....	50	—	—	8	17	3	13	9	—
Utah.....	17	—	—	2	2	3	10	—	—
Vermont.....	21	5	—	10	4	2	—	—	—
Virgin Islands...	5	4	1	—	—	—	—	—	—
Virginia.....	87	6	12	29	32	5	3	—	—
Washington.....	128	—	—	—	22	37	53	16	—
West Virginia....	90	34	24	27	4	1	—	—	—
Wisconsin.....	116	—	—	8	9	14	8	24	53
Wyoming.....	11	—	—	—	6	3	1	1	—

<sup>a/</sup> Salary refers to the monthly rate in effect in June 1951. For scope and limitations of data see table 1.<sup>b/</sup> Includes 70 director-workers.

Note: This table includes only caseworkers who devoted full time to the child welfare services program.

Table 8.— PUBLIC CHILD WELFARE WORKERS, BY STATE AND NUMBER OF CHILDREN SERVED, June 1951 <sup>a/</sup>

State	Total workers	Workers not directly serving children <sup>b/</sup>	Workers serving specified number of children				
			1-24	25-49	50-74	75-99	100 or more
<b>Total</b>							
Number.....	c/ 3,342	272	371	753	698	383	310
Percent d/...	100.0	—	14.8	29.9	27.8	15.2	12.3
Alabama.....	41	—	1	3	1	4	32
Alaska.....	4	—	—	—	—	—	4
Arizona.....	25	—	—	2	12	2	9
Arkansas.....	21	5	2	5	8	1	—
California.....	70	26	4	5	11	16	8
Colorado.....	24	—	2	6	8	5	3
Connecticut.....	119	14	25	28	14	27	11
Delaware.....	17	—	1	11	1	2	2
District of Columbia	50	9	4	8	19	10	—
Florida.....	29	4	—	13	9	3	—
Georgia.....	29	1	5	11	5	6	1
Hawaii.....	20	5	2	2	1	1	9
Idaho.....	5	—	1	3	1	—	—
Illinois.....	208	44	51	77	36	—	—
Indiana.....	151	10	5	27	49	29	31
Iowa.....	43	4	6	14	12	7	—
Kansas.....	17	4	1	4	4	3	1
Kentucky.....	53	—	14	28	9	1	1
Louisiana.....	53	—	5	41	5	2	—
Maine.....	38	—	—	2	13	16	7
Maryland.....	26	—	7	16	2	1	—
Massachusetts.....	158	19	25	40	38	28	8
Michigan.....	80	4	31	26	16	3	—
Minnesota.....	152	23	20	47	29	25	8
Mississippi.....	47	13	12	12	7	1	2
Missouri.....	64	2	6	16	26	13	1
Montana.....	11	2	—	—	5	3	1
Nebraska.....	21	1	2	12	5	—	1
Nevada.....	6	—	—	6	—	—	—
New Hampshire.....	15	—	—	—	1	—	14
New Jersey.....	9	—	—	2	1	2	4
New Mexico.....	20	—	1	6	9	2	2
New York.....	555	c/	c/	c/	c/	c/	c/
North Carolina.....	63	3	1	10	17	12	20
North Dakota.....	7	—	1	—	2	1	3
Ohio.....	235	21	30	49	75	25	35
Oklahoma.....	29	1	10	14	3	1	—
Oregon.....	44	10	5	12	17	—	—
Pennsylvania.....	53	2	4	16	14	8	9
Puerto Rico.....	71	16	1	7	3	19	25
Rhode Island.....	29	2	—	3	12	9	3
South Carolina.....	26	—	2	4	7	5	8
South Dakota.....	19	5	4	7	2	1	—
Tennessee.....	60	9	25	20	4	2	—
Texas.....	50	1	5	20	7	15	2
Utah.....	17	1	1	5	8	2	—
Vermont.....	21	—	—	1	8	7	5
Virgin Islands.....	5	—	—	1	1	1	2
Virginia.....	87	—	3	39	38	5	2
Washington.....	128	8	24	21	58	11	6
West Virginia.....	90	—	10	17	24	19	20
Wisconsin.....	116	3	12	24	40	27	10
Wyoming.....	11	—	—	10	1	—	—

<sup>a/</sup> Table includes 3,272 caseworkers and 70 director-workers. For scope and limitations of data, see table 1.<sup>b/</sup> Includes home-finders, workers in orientation and others who are not providing services directly to children.<sup>c/</sup> Includes 555 workers in New York for whom service load was not reported.<sup>d/</sup> Based on data excluding employees for whom service load was not reported.

Note: This table includes only workers who devoted full time to the child welfare services program.

Table 9.— URBAN AND RURAL COUNTIES SERVED BY PUBLIC CHILD WELFARE WORKERS, AND PERCENT OF STATE'S CHILD POPULATION LIVING IN THESE COUNTIES, JUNE 1951 <sup>a/</sup>

State	Number of counties in State	Number of counties served by child welfare workers			Percent of child population in counties served by child welfare workers <sup>c/</sup>
		Total	Urban counties <sup>b/</sup>	Rural counties	
Total Number.....	3,187	1,492	453	1,039	66.9
Percent.....	100.0	46.8	14.3	32.6	—
Alabama.....	67	29	8	21	60.9
Alaska.....	4	3	—	3	77.9
Arizona.....	14	11	4	7	91.8
Arkansas.....	75	19	2	17	39.3
California.....	58	55	22	33	98.1
Colorado.....	63	13	7	6	63.2
Connecticut.....	8	8	6	2	100.0
Delaware.....	3	3	1	2	100.0
District of Columbia...	1	1	1	—	100.0
Florida.....	67	10	9	1	52.8
Georgia.....	159	27	7	20	31.1
Hawaii.....	4	2	1	1	77.1
Idaho.....	44	7	1	6	22.0
Illinois.....	102	98	33	65	99.3
Indiana.....	92	46	20	26	14.7
Iowa.....	99	27	12	15	44.2
Kansas.....	105	28	9	19	42.0
Kentucky.....	120	91	6	85	76.9
Louisiana.....	64	51	9	42	86.7
Maine.....	16	16	6	10	100.0
Maryland.....	24	14	4	10	82.3
Massachusetts.....	14	14	11	3	100.0
Michigan.....	83	47	17	30	86.7
Minnesota.....	87	25	8	17	55.9
Mississippi.....	82	16	8	8	29.5
Missouri.....	115	31	10	21	59.3
Montana.....	56	7	6	1	36.7
Nebraska.....	93	72	8	64	84.0
Nevada.....	17	17	4	13	100.0
New Hampshire.....	10	10	5	5	100.0
New Jersey.....	21	8	5	3	17.7
New Mexico.....	32	13	5	8	66.0
New York.....	62	62	26	36	100.0
North Carolina.....	100	31	8	23	49.0
North Dakota.....	53	6	2	4	18.0
Ohio.....	88	55	25	30	85.3
Oklahoma.....	77	48	11	37	73.6
Oregon.....	36	12	4	8	67.3
Pennsylvania.....	67	16	2	14	15.4
Puerto Rico.....	77	76	9	67	99.9
Rhode Island.....	5	5	4	1	100.0
South Carolina.....	46	17	3	14	54.3
South Dakota.....	68	56	7	49	82.6
Tennessee.....	95	32	6	26	57.3
Texas.....	254	34	21	13	24.5
Utah.....	29	14	5	9	85.1
Vermont.....	14	14	2	12	100.0
Virgin Islands.....	2	2	1	1	100.0
Virginia.....	127	28	16	12	38.7
Washington.....	39	33	13	20	96.3
West Virginia.....	55	50	7	43	93.7
Wisconsin.....	71	71	18	53	100.0
Wyoming.....	23	11	8	3	65.8

<sup>a/</sup> Table based on caseworkers and director-workers assigned to specific geographic areas. For scope and limitations of data, see table 1.

<sup>b/</sup> Based on 1950 Census. An urban county is one in which at least 50 percent of the population are living in urban places as classified by the Bureau of the Census.

<sup>c/</sup> Based on 1940 Census. County data on age of population for 1950 Census not yet available.

Note: This table includes only workers who devoted full time to the child welfare services program.

## CHILDREN'S BUREAU STATISTICAL SERIES

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*Gayle*

**CHILDREN'S BUREAU**

**STATISTICAL SERIES**

**NUMBER 14**

**Adoption  
of  
Children**

**1951**

U.S. Children's Bureau  
Feb 17, 1953

## DEFINITIONS AND SOURCE OF THE DATA

Adoption is the legal process by which the relationship of parent and child is established between persons not so related by nature.

The data for this analysis are derived from reports received from State departments of welfare regarding children under 21 years of age for whom adoption petitions were filed during the report year. The report year for most of the States was the calendar year ending December 31, 1951.

The unit of count is an adoption petition filed. Therefore, the data include some children who were not ultimately adopted since some adoption petitions are withdrawn or denied. Because this happens in only a small number of instances, this report uses the terms "adopted children" and "children for whom adoption petitions were filed" interchangeably.

The data included in this report are for children for whom adoption petitions were filed by stepparents, relatives, and nonrelatives, including those placed independently as well as those placed by recognized child-placing agencies. An "independent placement" is one where a child is placed into the adoptive home by parents, friends, relatives, physicians, lawyers or others, without the aid of a recognized child-placing agency. A "recognized child-placing agency" is a public child-placing agency or a voluntary one that maintains acceptable standards of social work. In many States these are agencies that are licensed or certified by the State department of welfare.

Reports for 1951 were received from 25 States which provided data for 90 percent or more of all of the adoption petitions filed in their States. Eight additional States transmitted reports which did not meet this reporting standard and are therefore considered incomplete. (See table 1.) The District of Columbia, Hawaii, Puerto Rico and the Virgin Islands are counted as States in this report. Only the 25 States meeting the reporting standard are used in the analysis of the data for 1951.

The data included in this report describe adoption practices as they exist in the 25 States. They do not necessarily reflect ideal or desirable standards.

# ADOPTION OF CHILDREN, 1951: A Statistical Analysis

by I. Richard Perlman and Jack Wiener 1/

## Adoptions have soared.

The number of children adopted each year has increased sharply in the last few years. In 1951 the number of adoption petitions filed in the United States probably reached 80,000 -- 60 percent more than in

1944. 2/ These estimates are based on reports from State public welfare agencies which transmitted adoption data to the Children's Bureau. In 1951, 33 States reported and provide the base for the estimate for that year; in 1944, 22 States reported.

There seems to be an increase in both the number of children adopted by stepparents or other relatives and the number adopted by nonrelated persons. This is suggested by a 65 percent increase in relative adoptions and an 85 percent increase in nonrelative adoptions between 1944 and 1951 for the small and perhaps unrepresentative group of 11 States for which data are available.

Among the factors accounting for the increase in adoptions is the large number of homes broken by death, divorce or desertion during and following World War II. In many cases the mothers remarried and the children were subsequently adopted by their stepfathers.

Since 1944 there has also been an increase in the number of children born out of wedlock. These represent a major source of adoptable children.

Another factor contributing to the increase in adoptions is the growing emphasis on getting children out of long-time placement in institutions and boarding homes, where there is no continuing relationship with parents or other relatives. In both of these situations, a permanent home by adoption is being stressed as the more desirable solution to the child's problem.

## Adoptions in 25 States, 1951

With the rapid climb in adoptions, it becomes especially important to know more about the circumstances under which adoptions are taking place: What are the rates in different States? Who are the children being adopted? What are their ages? Their race? Their birth status? Who

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1/ Program Analysis Branch, Division of Research.

2/ See "Children Acquire New Parents," Joseph L. Zarefsky, The Child 10:142-144, March 1946, for 1944 data.

place children for adoption? Definitive answers to these questions are not yet available for the entire country because many States do not collect adoption statistics. Some suggestive answers, however, can be obtained from the adoption reports for 1951 transmitted to the Children's Bureau by the 25 State departments of welfare that supplied substantially complete information. These States are distributed among all regions of the country (see table 1), and include about a third of the total child population under 21 years of age in the United States and its territories and possessions. But these 25 States are not necessarily representative of all States in the country. In fact, these States are somewhat more rural than the country as a whole, as indicated by the fact that the proportion of children living in urban areas is less here than for the United States, its territories and possessions -- 49 percent as compared with 58 percent respectively. This difference in urbanization means that the rates of adoptions may also be different (see next section on adoption rates). It is also possible that the number of independent placements, the proportion of children born out of wedlock, and other facts may be underestimated in this report.

### State Adoption Rates

#### Adoption rates vary widely among States.

There was considerable variation in adoption rates among the 25 States from which data were obtained for 1951. The following list shows the number of children for whom adoption petitions were filed per 10,000 children under 21 years of age in each State:

25 States combined.....		13.0	
Arkansas.....	6.3	Minnesota.....	16.3
Connecticut.....	15.7	New Hampshire.....	14.2
Delaware.....	13.2	New Mexico.....	15.9
Florida.....	17.8	North Dakota.....	10.1
Georgia.....	6.9	Oregon.....	27.6
Hawaii.....	29.6	Puerto Rico.....	0.9
Indiana.....	20.4	Rhode Island.....	15.4
Iowa.....	17.8	South Dakota.....	11.4
Kansas.....	18.1	Texas.....	14.9
Kentucky.....	5.5	Vermont.....	17.1
Louisiana.....	6.2	Virgin Islands.....	3.8
Maine.....	24.4	Virginia.....	11.0
		Wisconsin.....	12.1

The adoption rate for all 25 States combined was 13.0 per 10,000 children under 21 years of age. For individual States (excluding the territories and possessions) the rates ranged from 5.5 in Kentucky to 27.6 in Oregon.

Adoption rates  
are highest in  
urban States.

The rates for adoption are related to the proportion of the child population living in urban places.

The 11 States with a predominantly urban child population (50 percent or more of the children living in urban areas) have a combined rate of 16.4 adoption petitions per 10,000 children, whereas the 14 States with a predominantly rural child population have a combined rate of 10.4.

The fact that child-placing agencies and agencies providing services to unmarried mothers are centered in urban areas may partly explain the higher urban rates. Many unmarried mothers who want to offer their children for adoption go to large cities for this purpose. But the low rates in rural States also raises the question whether the need for adoption services is being met in these areas.

### Racial Differences

Relatively few  
Negro children  
are adopted.

Only 6 percent of the children for whom adoption petitions were filed in the 25 States under discussion were nonwhite (see table 2) whereas the non-white child population in these States was 14 percent. For the 5 reporting States with the

highest proportion of nonwhite children (Arkansas, Florida, Georgia, Louisiana, Virginia), the difference was even greater -- 10 percent of the children adopted, but 29 percent of the total child population was nonwhite.

Among the factors accounting for the relatively small number of adoptions among nonwhites is the inadequacy of adoptive services for Negro children and the inability of agencies to find adoptive homes for them. In many agencies, moreover, the pressure of applicants for the adoption of white children forces concentration on services for white children at the expense of services to Negro children.

Another reason for the small number of Negro adoptions may be that many adoptable Negro children are "taken in" by relatives or friends. These children often live with families just as they would if they were adopted, although the legal process has not been consummated. There may be economic reasons why the adoption does not take place or this may be due to lack of understanding as to what the legal process means to the child and the family.

## Relation of Adoptive Parents to Child

More than half  
the adoptions are  
by a relative of  
the child.

Although adoption is ordinarily considered the process by which a child becomes a member of a family to which he is unrelated, a large proportion (52 percent) of all adoption petitions in the 25 States reporting in 1951 were filed by stepparents or other relatives, such as aunts, uncles, grandparents, etc. The remainder (48 percent) were filed by persons unrelated to the child (see table 3).

Most of the adoptions by relatives were by stepparents. There are many advantages in having a child adopted by the stepparent. Adoption confers a legal status on the parent-child relationship, entitling the child to certain rights, such as guardianship, inheritance, support, and the name and status in the family that he would have had if he had been born to both parents. For the stepparent, adoption guarantees that no one else has a claim on the child or can interfere in plans for him. However, since such adoptions deprive a child of the same rights from his natural parents, careful consideration should be given to whether the child gains or loses by adoption by a stepparent.

In all adoptions, whether by related or unrelated persons, the interests of all persons concerned should be adequately safeguarded. However, in adoptions by related persons the circumstances are usually assumed to be less hazardous than in those by unrelated persons and the same safeguards are not always required. In adoption by stepparents, the children are generally not infants; they have usually been living with one of the parents and are not being placed outside the home; their birth status is generally a socially acceptable one (born in wedlock); and the adoption process is for legal and financial reasons rather than the social protection of the child. Because of these differences between "relative" and "nonrelative" adoptions, in the remainder of this report these two types of adoption will be discussed separately wherever that seems important and practical.

### Agency versus Independent Placements

Too many children  
are adopted with-  
out adequate  
safeguards.

Thirty-one percent of the children for whom adoption petitions were filed in 1951 in the 25 reporting States had been placed in the adoptive home independently -- that is, without the aid of a social agency -- by parents, friends, relatives, physicians, lawyers or others. Another 27 percent had been

placed by a recognized child welfare agency. Among the latter, for every two placements made by a public child-placing agency, there were three made by a voluntary agency. In the remaining 42 percent of the

adoptions no placement was involved, the child being adopted by persons, usually relatives, in whose home he had always lived or by stepparents with the child coming into the home through the marriage of his natural parent to the petitioner (see table 4).

Independent placements are especially frequent in adoptions by unrelated persons. In nearly half of these, the children were placed into the adoptive home independently. (See chart.) This large group of children, many of whom were very young and many of whom were born out of wedlock, were therefore without the safeguards that accompany placement by a social agency. Almost half the children adopted by nonrelatives are placed independently. Fortunately, many independent placements turn out satisfactorily. But they are fraught with danger. There is no assurance that a careful study has been made of the child's physical condition, family background, or intellectual potentialities. The adoptive parents may not be certain that the child is legally available for adoption or that they are secure against claims from the natural parents who may change their minds about the child upon more deliberate consideration. The child has less protection against being placed in the home of parents who are unfit to rear him. And he may have been unnecessarily separated from his own parents when proper help and guidance could have kept the family together.

Independent placements are relatively fewer.

Although the number of children placed for adoption independently is still very large, there has been some improvement in this situation in the last few years. In 17 States for which comparable data are available, 55 percent of the children adopted by nonrelatives in 1948 were placed independently. By 1951, the percent had dropped to 51. This improvement in adoption placements, although not large, may indicate an increased awareness of the importance of having adoption proceedings carried out under the guidance of an authorized agency.

### Age at Adoption

Most children are young when adopted.

The average (median) age of the children for whom adoption petitions were filed in the 25 States reporting in 1951 was 3.3 years. A large proportion of the children (two-fifths) were under two years. (See table 5.) These figures refer to the age of the child at the time the petition was filed. For many children who were placed in adoptive homes, the placement occurred considerably before the time of the petition.

The children adopted by nonrelatives were younger on the average than those adopted by relatives. Of those adopted by nonrelatives, two-thirds were under two years of age at the time the petition was filed. In contrast, only about one-tenth of the children petitioned for by related persons were under two, as shown in the following table:

<u>Age at time of petition</u>	<u>Petitions filed by: —</u>	
	<u>Relatives</u>	<u>Nonrelatives</u>
Total - number reported....	11,375	10,318
Total - percent.....	<u>100</u>	<u>100</u>
Under 6 months.....	3	25
6 months, under 2 years.....	8	41
2 years, under 6 years.....	38	22
6 years, under 14 years.....	40	10
14 years, under 21 years.....	11	2

The difference in the ages of the children adopted by relatives and those adopted by nonrelatives reflects the different circumstances under which these two types of adoption occur.

Most relative adoptions are by stepparents and children do not usually acquire stepparents at a very early age. This, therefore, accounts for the fact that only a small proportion of the children adopted by relatives are under 2 years.

In nonrelative adoptions, the children are more likely to be very young. This is partly because it is easier for social agencies to find homes for younger children than for older ones. Many adoptive parents consider older children "undesirable" merely because of their age. Social workers, however, are of the opinion that many older children are adoptable and would fit into a family in a way that would be satisfying to themselves and to the adoptive parents.

Also, in nonrelative adoptions, many children are placed independently. In such cases, the children are even younger than those placed through

social agencies. This is shown by the following table on the age of the child at the time of placement:

<u>Placement made: --</u>		
<u>Age at time of placement</u>	<u>By agencies</u>	<u>Independently</u>
Total - number reported..	5,015	5,899
Total - percent.....	<u>100</u>	<u>100</u>
Under 1 month of age.....	11	51
1 month, under 3 months.....	15	8
3 months, under 6 months....	19	6
6 months, under 1 year.....	22	6
1 year, under 6 years.....	26	21
6 years, and over.....	7	8

Half the children placed independently are under one month of age.

In independent placements, more than half of the children were under one month of age at the time of placement, which means that in a large number of instances the children were placed directly from the hospital or shortly thereafter.

In contrast, agency placements tended to occur at a somewhat later age, with only 11 percent of the children placed under one month of age.

This difference is attributable to the fact that agencies make studies of the adoptive parents, the natural parents, and the child and try to make sure that legal requirements regarding the surrender of the child are met prior to placing the child. Such procedures are not usually followed in independent placements.

#### Birth Status

Half the adopted children are born out of wedlock.

The children for whom adoption petitions were filed in the 25 States reporting completely in 1951 were almost equally divided between those born out of wedlock and those born in wedlock (see table 7). As indicated below, nonrelatives were the petitioners for most (69 percent) of the adoptive children born out of wedlock. In contrast, relatives filed

petitions for most (75 percent) of the adoptive children born in wedlock:

Petitions filed by: --

	<u>Total reported</u>		<u>Relatives</u>		<u>Non- relatives</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Born out of wedlock.....	10,336	100	3,224	31	7,112	69
Born in wed- lock.....	10,407	100	7,772	75	2,635	25

Children born out of wedlock and not adopted by relatives are the ones most vulnerable to "black" and "gray" market adoption practices. The unmarried mother, often young (2 out of every 5 unmarried mothers are teenagers), is likely to find it hard to provide for her baby. Her earning capacity is usually limited; often her parents or relatives are unable or unwilling to help her care for the child; and she finds it difficult to face the social stigma attached to unmarried parenthood. These circumstances, coupled with the heavy demand from prospective parents for an adoptable child, often lead to hasty, and perhaps ill-considered, negotiations. With a considerable increase in the number of children born out of wedlock in this country -- from 87,900 in 1938 to 133,200 in 1949 -- it is more important than ever to provide services for unmarried mothers and their children in order to cope with the dangers of hasty placement.

Adopted children  
born in wedlock  
are mostly from  
broken homes.

Most adoptive children born in wedlock come from homes broken by divorce, desertion or separation. This is true for those adopted by relatives as well as for those adopted by nonrelatives, as shown in the following table:

Petitions filed by: --

<u>Adopted children born in wedlock</u>	<u>Relatives</u>	<u>Nonrelatives</u>
Total - number reported.....	7,772	2,635
Total - percent.....	<u>100</u>	<u>100</u>
Both parents dead.....	2	3
One parent dead.....	19	15
Both parents living and together.....	4	25
Both parents living, marriage broken.....	70	46
Other and not reported...	5	11

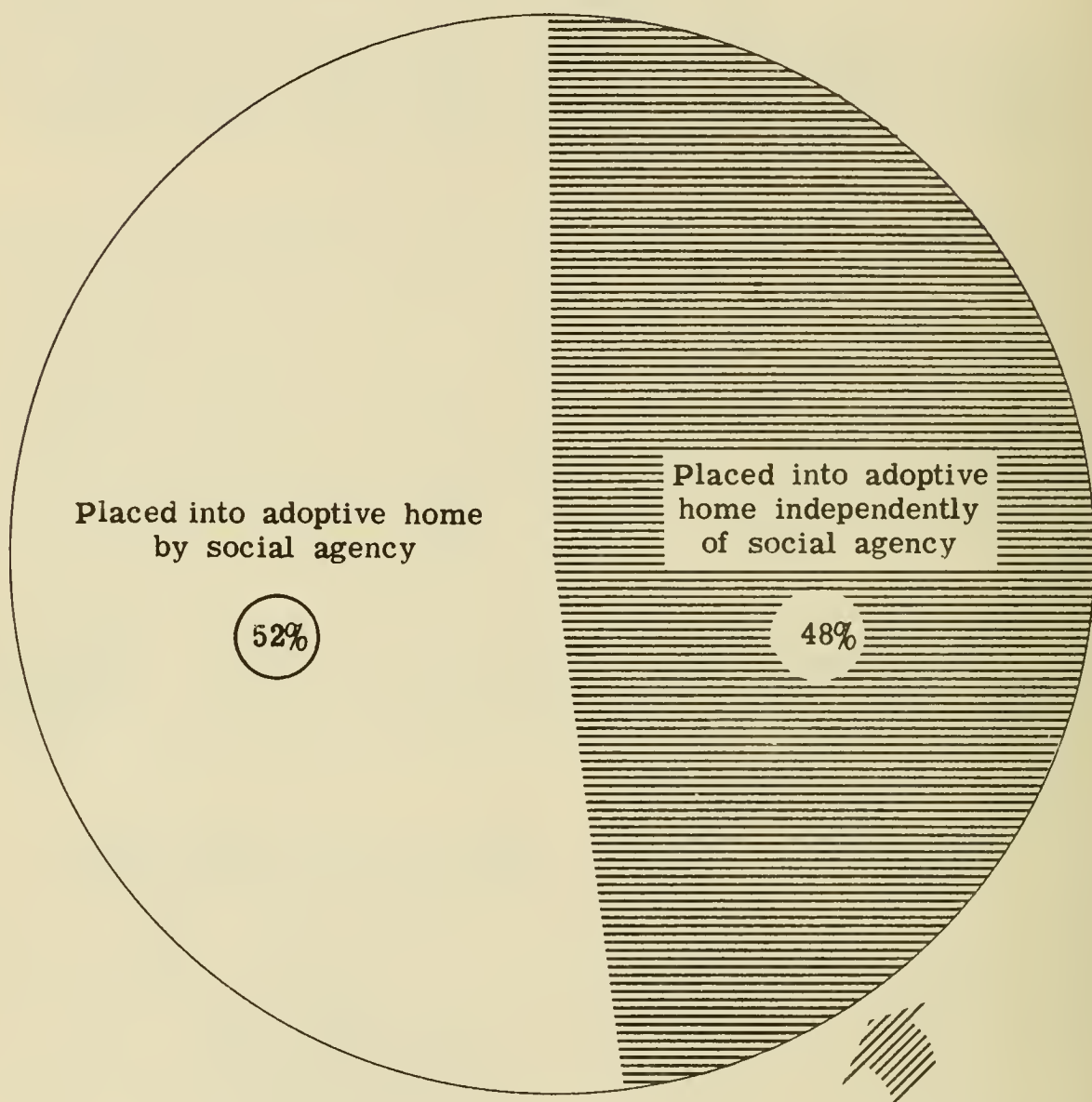
Some children are  
adopted by non-  
relatives even  
though parents  
are living  
together.

The table also shows that a considerable proportion of the children born in wedlock and adopted by non-relatives had parents who were still living together. The material presented in this study does not show why this happens -- why parents who are not separated give up their children permanently. Perhaps these parents had more children than they felt they could support; perhaps one or both of them were ill;

perhaps the parents had married shortly before or after the birth of the child and could not face the social disapproval of the situation. Whatever the reason, these are situations where the services of a social worker are needed to make sure that adoption takes place only when it is the best solution for the child and the parents.

# TOO MANY CHILDREN ARE ADOPTED WITHOUT ADEQUATE SAFEGUARDS

## Children Adopted By Nonrelatives



This group especially vulnerable to black or gray market practices

Table 1.— NUMBER OF CHILDREN FOR WHOM ADOPTION PETITIONS WERE FILED

IN 33 STATES, 1951 a/

State and reporting coverage <u>b/</u>	Number of adoption petitions filed	State and reporting coverage <u>b/</u>	Number of adoption petitions filed
Complete reports (25 States): Total.....	25,294	Incomplete reports (8 States): Total.....	11,438
Arkansas.....	499	California... <u>b/</u> ....	6,440
Connecticut.....	982	District of Columbia.	261
Delaware.....	141	Massachusetts.....	1,830
Florida... <u>c/</u> .....	1,690	Montana.....	316
Georgia.....	996	Nevada.....	140
Hawaii.....	627	Utah.....	449
Indiana.....	2,810	Washington.....	1,611
Iowa.....	1,645	West Virginia.....	391
Kansas.....	1,200		
Kentucky.....	665		
Louisiana.....	683		
Maine.....	823		
Minnesota.....	1,743		
New Hampshire.....	257		
New Mexico.....	486		
North Dakota.....	255		
Oregon.....	1,434		
Puerto Rico.....	103		
Rhode Island.....	392		
South Dakota.....	286		
Texas.....	4,432		
Vermont.....	240		
Virgin Islands.....	5		
Virginia.....	1,429		
Wisconsin... <u>d/</u> .....	1,471		

a/ Report period is for calendar year ending December 31, 1951 with following exceptions: Conn., La., Minn., N. Dak., and R.I. reported for year ending June 30, 1951 and Texas for year ending August 31, 1951.

b/ States with "complete reports" are those whose reports include data for 90 percent or more of the children for whom adoption petitions were filed. California is listed under "incomplete reports" because data on characteristics of the children were unavailable for more than a third of the children for whom petitions were filed. This would have biased the analysis of these data if included with complete reporting States.

c/ Report based on all children placed by licensed child-placing agencies for whom a petition was filed during 1951, and all children placed independently, for whom the investigation of the petition was completed in 1951.

d/ Report based on adoptions completed rather than petitions filed.

Table 2.— RACE OF CHILDREN FOR WHOM ADOPTION PETITIONS WERE FILED,

IN 25 STATES REPORTING COMPLETELY, 1951 <sup>a/</sup>

State	Total	White	Negro	Other	Race not reported
Total Number.....	25,294	22,570	940	529	1,255
Percent <sup>b/</sup> .	100	94	4	2	-
Arkansas.....	499	462	37	-	-
Connecticut.....	982	933	32	6	11
Delaware.....	141	110	3	1	27
Florida.....	1,690	1,549	135	6	-
Georgia.....	996	869	99	-	28
Hawaii.....	627	149	5	426	47
Indiana.....	2,810	2,480	88	4	238
Iowa.....	1,645	1,622	20	3	-
Kansas.....	1,200	1,155	37	8	-
Kentucky.....	665	645	19	1	-
Louisiana.....	683	628	55	-	-
Maine.....	823	822	-	1	-
Minnesota.....	1,743	1,191	8	13	531
New Hampshire...	257	240	-	1	16
New Mexico.....	486	474	6	5	1
North Dakota....	255	241	-	5	9
Oregon.....	1,434	1,402	7	18	7
Puerto Rico.....	103	91	12	-	-
Rhode Island....	392	376	14	-	2
South Dakota....	286	266	1	11	8
Texas.....	4,432	4,006	161	3	262
Vermont.....	240	237	-	-	3
Virgin Islands..	5	1	4	-	-
Virginia.....	1,429	1,180	184	-	65
Wisconsin.....	1,471	1,441	13	17	-

<sup>a/</sup> See footnotes a-d, table 1.<sup>b/</sup> Base used for calculating percents is the total excluding those for whom race was not reported.

Table 3.— RELATION OF PETITIONERS TO CHILDREN FOR WHOM ADOPTION PETITIONS

WERE FILED, IN 25 STATES REPORTING COMPLETELY, 1951 <sup>a/</sup>

State	Total	Relation of petitioners to children				Relation not reported
		Own parent	Step-parent	Other relative	Not related	
Total						
Number.....	25,294	220	8,563	2,683	10,353	3,475
Percent.. <sup>b/</sup>	100	1	39	12	48	-
Arkansas.....	499	6	150	71	271	1
Connecticut....	982	15	369	74	504	20
Delaware.....	141	1	50	17	46	27
Florida.....	1,690	11	494	206	699	280
Georgia.....	996	6	242	160	556	32
Hawaii.....	627	18	277	104	212	16
Indiana.....	2,810	41	970	332	1,212	255
Iowa.....	1,645	2	635	155	828	25
Kansas.....	1,200	10	487	119	583	1
Kentucky.....	665	1	119	140	394	11
Louisiana.....	683	-	188	73	420	2
Maine.....	823	19	375	94	334	1
Minnesota.....	1,743	-	590	122	919	112
New Hampshire..	257	5	56	42	140	14
New Mexico.....	486	-	150	89	242	5
North Dakota...	255	-	111	20	121	3
Oregon.....	1,434	20	608	137	666	3
Puerto Rico....	103	5	9	17	72	-
Rhode Island...	392	16	228	42	105	1
South Dakota...	286	2	90	23	170	1
Texas.....	4,432	20	1,352	343	106	2,611
Vermont.....	240	3	70	35	131	1
Virgin Islands.	5	-	3	1	1	-
Virginia.....	1,429	18	387	165	808	51
Wisconsin.....	1,471	1	553	102	813	2

<sup>a/</sup> See footnotes a-d, table 1.<sup>b/</sup> Base used for calculating percents is the total excluding those for whom relation of petitioner was not reported.

Table 4.— TYPE OF PLACEMENT FOR CHILDREN FOR WHOM ADOPTION PETITIONS WERE

FILED, IN 25 STATES REPORTING COMPLETELY, 1951 a/

State	Total	Type of placement				No placement made	Type of placement not reported
		Agency		Independent			
		Public	Private	By parents or other relatives	By others		
Total							
Number.....	25,294	2,349	3,827	4,071	2,870	9,380	2,797
Percent b/.	100	10	17	18	13	42	-
Arkansas.....	499	131	-	89	58	221	-
Connecticut....	982	116	237	99	113	396	21
Delaware.....	141	2	-	36	23	53	27
Florida.....	1,690	-	280	241	458	711	-
Georgia.....	996	125	73	396	121	249	32
Hawaii.....	627	74	16	180	43	305	9
Indiana.....	2,810	553	177	485	136	1,221	238
Iowa.....	1,645	77	361	-	490	717	-
Kansas.....	1,200	25	111	245	250	567	2
Kentucky.....	665	80	111	154	52	254	14
Louisiana.....	683	38	157	-	225	261	2
Maine.....	823	57	59	-	-	-	707
Minnesota.....	1,743	167	706	132	80	581	77
New Hampshire..	257	52	43	95	13	11	43
New Mexico.....	486	43	20	177	84	154	8
North Dakota...	255	-	99	33	6	111	6
Oregon.....	1,434	-	217	69	379	765	4
Puerto Rico....	103	10	1	71	5	16	-
Rhode Island...	392	33	54	51	11	242	1
South Dakota...	286	61	22	59	49	94	1
Texas.....	4,432	245	533	842	45	1,426	1,341
Vermont.....	240	31	66	54	12	67	10
Virgin Islands..	5	5	-	-	-	-	-
Virginia.....	1,429	229	161	369	206	401	63
Wisconsin.....	1,471	195	323	194	11	557	191

a/ See footnotes a-d, table 1.b/ Base used for calculating percents is the total excluding those for whom type of placement was not reported.

Table 5.— AGE AT TIME OF PETITION OF CHILDREN FOR WHOM ADOPTION PETITIONS

WERE FILED, IN 25 STATES REPORTING COMPLETELY, 1951 a/

State	Total	Under 6 months	6 months under 2 years	2 years under 6 years	6 years under 14 years	14 years and over	Age not reported
Total Number.....	25,294	3,759	6,121	7,191	5,892	1,567	764
Percent <u>b/</u> .	100	15	25	29	24	7	-
Arkansas.....	499	73	152	135	106	33	-
Connecticut.....	982	101	220	370	234	48	9
Delaware.....	141	25	18	41	19	11	27
Florida.....	1,690	428	205	369	323	85	280
Georgia.....	996	214	261	265	180	37	39
Hawaii.....	627	93	102	206	178	44	4
Indiana.....	2,810	318	587	763	669	234	239
Iowa.....	1,645	213	481	488	354	106	3
Kansas.....	1,200	326	155	348	297	72	2
Kentucky.....	665	79	227	170	154	31	4
Louisiana.....	683	30	244	217	142	24	26
Maine.....	823	152	129	309	181	52	-
Minnesota.....	1,743	48	643	524	393	92	43
New Hampshire...	257	34	81	71	55	12	4
New Mexico.....	486	132	84	120	117	30	3
North Dakota....	255	9	75	88	61	20	2
Oregon.....	1,434	306	271	370	384	98	5
Puerto Rico.....	103	11	29	25	22	15	1
Rhode Island....	392	20	71	147	114	38	2
South Dakota....	286	6	125	66	69	19	1
Texas.....	4,432	866	1,077	1,047	1,133	257	52
Vermont.....	240	13	57	90	61	14	5
Virgin Islands..	5	-	-	1	3	1	-
Virginia.....	1,429	249	345	464	285	75	11
Wisconsin.....	1,471	13	482	497	358	119	2

a/ See footnotes a-d, table 1.b/ Base used for calculating percents is the total excluding those for whom age was not reported.

Table 6.— AGE AT TIME OF PLACEMENT OF CHILDREN FOR WHOM ADOPTION PETITIONS WERE FILED,

IN 25 STATES REPORTING COMPLETELY, 1951 a/

State	Total	Under 1 month	1 month under 3 months	3 months under 6 months	6 months under 1 year	1 year under 6 years	6 years under 12 years	12 years and over	No placement made	Age not reported
Total Number...	25,294	4,255	1,315	1,287	1,513	2,746	794	124	9,380	3,880
Percent <u>b/</u>	100	35	11	11	12	23	7	1	-	-
Ark.....	499	61	11	6	93	91	16	-	221	-
Conn.....	982	113	26	80	139	179	24	4	396	21
Del.....	141	28	8	5	2	14	3	1	53	27
Fla.....	1,690	462	39	35	32	107	20	4	711	280
Ga.....	996	245	43	66	117	180	34	11	249	51
Hawaii...	627	140	26	23	36	47	10	4	305	36
Ind.....	2,810	324	252	123	114	356	143	15	1,221	262
Iowa.....	1,645	-	-	-	-	-	-	-	717	928
Kans.....	1,200	299	36	50	58	121	48	8	567	13
Ky.....	665	69	75	57	56	108	30	-	254	16
La.....	683	-	-	-	-	-	-	-	261	422
Maine....	823	6	7	25	38	36	3	1	-	707
Minn.....	1,743	113	277	221	132	276	79	8	581	56
N. H.....	257	45	6	22	29	40	19	1	11	84
N. M.....	486	158	29	16	25	60	25	5	154	14
N. Dak...	255	20	38	43	18	12	7	3	111	3
Oreg.....	1,434	297	72	58	80	102	44	4	765	12
P. R.....	103	14	17	16	7	24	5	2	16	2
R. I.....	392	25	8	19	30	51	12	4	242	1
S. Dak...	286	51	21	17	36	37	15	2	94	13
Tex.....	4,432	1,370	144	119	139	418	166	27	1,426	623
Vt.....	240	12	11	37	34	50	13	3	67	13
V. I.....	5	-	-	-	-	1	3	1	-	-
Va.....	1,429	271	88	117	157	248	34	12	401	101
Wisc.....	1,471	132	81	132	141	188	41	4	557	195

a/ See footnotes a-d, table 1.b/ Base used for calculating percents is the total excluding those for whom no placement was made, and age was not reported.

Table 7.-- BIRTH STATUS OF CHILDREN FOR WHOM ADOPTION PETITIONS WERE FILED,

IN 25 STATES REPORTING COMPLETELY, 1951 a/

State	Total	Born out of wedlock			Total	Born in wedlock				Birth status not reported
		Total	To unmarried women	To married women		Both parents living and together	Both parents living, marriage broken	One or both parents dead	Other and not reported	
Total Number...	25,294	b/11,537	9,285	1,065	11,305	1,039	6,936	c/ 2,260	1,070	2,452
Percent d/	100	51			49					-
Ark.....	499	269	268	1	229	30	145	54	-	1
Conn.....	982	646	515	131	314	22	197	88	7	22
Del.....	141	67	58	9	47	5	30	12	-	27
Fla.....	1,690	670	524	146	729	63	524	136	6	291
Ga.....	996	524	422	102	441	46	279	88	28	31
Hawaii....	627	340	309	31	284	69	170	43	2	3
Ind.....	2,810	1,105	928	177	1,452	164	982	276	30	253
Iowa.....	1,645	752	704	48	870	117	575	156	22	23
Kans.....	1,200	541	481	60	658	61	462	126	9	1
Kentucky..	665	383	355	28	260	32	154	73	1	22
La.....	683	-	-	-	-	-	-	-	-	683
Maine.....	823	443	423	20	371	44	261	63	3	9
Minn.....	1,743	1,040	b/	b/	667	19	368	121	159	36
N. H.....	257	165	148	17	55	15	23	17	-	37
N. M.....	486	226	201	25	254	37	152	64	1	6
N. Dak....	255	147	b/	b/	103	-	-	-	103	5
Oreg.....	1,434	593	533	60	811	98	565	138	10	30
P. R.....	103	59	55	4	44	11	8	25	-	-
R. I.....	392	205	180	25	182	12	138	32	-	5
S. Dak....	286	149	145	4	136	17	77	42	-	1
Tex.....	4,432	1,366	1,343	23	2,211	94	1,231	471	415	855
Vt.....	240	154	135	19	81	4	58	17	2	5
V. I.....	5	3	3	-	2	1	-	1	-	-
Va.....	1,429	846	726	120	496	42	326	114	14	87
Wisc.....	1,471	844	849	15	608	36	211	103	258	19

a/ See footnotes a-d, table 1.b/ Total includes 1,040 children in Minnesota, and 147 in North Dakota for whom information is not available on whether the births out of wedlock were to married or unmarried women.c/ Of the 2,260, only 207 had both parents dead.d/ Base used for calculating percents is the total excluding those for whom birth status was not reported.



## CHILDREN'S BUREAU STATISTICAL SERIES

Bulletins in this series present analyses of periodic data useful to research, administrative, and informational specialists in the field of services for children. In these bulletins from time to time will appear data on the operations of public health and welfare programs, statistics on conditions of child life, and related source materials. Copies are available without charge. If you would like to receive future issues in this series, please send to the Children's Bureau a request that your name be placed on this mailing list.

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CHILDREN'S BUREAU

STATISTICAL SERIES

NUMBER **16**

**Personnel  
in Public  
Child Welfare  
Programs**

**1952**



## PERSONNEL IN PUBLIC CHILD WELFARE PROGRAMS, 1952 1/

On June 30, 1952, nearly 4,900 persons were reported as being employed full-time in professional positions in the child welfare programs of State and local public welfare agencies. 2/ This number, the largest ever reported, exceeded the number employed on June 30, 1951 by 5 percent. 3/ Over 1,400 clerical personnel working full-time in the public child welfare program were aiding this professional staff. Services to children were also provided by State and local public welfare agencies through about 3,400 general welfare workers, primarily public assistance workers. This latter group, however, served a relatively small proportion of children -- less than a fifth of all the children receiving public child welfare services. This report deals with the 4,866 full-time professional public child welfare employees who were responsible for the great bulk of services to children provided by State and local public welfare agencies.

Thirty-four States reported an increase in full-time child welfare staff in the year ending June 30, 1952. The largest increases in the number of employees were reported by North Carolina, Ohio, Puerto Rico and Wisconsin each of which added more than 20 professional child welfare employees.

The sections that follow will discuss the extent to which Federal child welfare services funds have been used to help pay for these expanding public child welfare staffs, the extent of geographic coverage currently provided by these employees, and such staffing problems as turnover, vacancies, and workloads.

### Staff paid from Federal funds increased following the 1950 amendments

The effects of the additional Federal child welfare services funds available as a result of the amendments to the Social Security Act passed late in 1950 were clearly evident by June 1952. An analysis of the change between June 1951 and June 1952 in source of funds for salary of staff reveals this dramatically. For the 49 States for which comparable data are available, all of the added employees in June 1952 as compared with

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1/ Report prepared by Mignon Sauber, Social Statistics Section, Division of Research.

2/ See table 1 for limitations of data. It is estimated that if all States reported completely, there would be an additional 200 public child welfare employees in professional positions throughout the country.

3/ All trend data based on 49 comparable States.

June 1951 were paid in whole or part by Federal child welfare services funds. The following table shows this clearly:

Source of funds for salary and travel	Number of full-time public child welfare employees <u>1/</u>
All funds ---	
June 1952.....	4,386
June 1951.....	4,179
Difference.....	+ 207
Federal child welfare services funds, whole or part --	
June 1952.....	1,425
June 1951.....	1,162
Difference.....	+ 263
State and local funds entirely --	
June 1952.....	2,961
June 1951.....	3,017
Difference.....	-56

1/ Data exclude California, Kentucky, Maryland and Pennsylvania for which complete and comparable information was not available.

Federal funds were primarily responsible for the increases in the number of employees in each type of position -- caseworkers, supervisors and consultants, and others.

The table above also shows that the total number of employees paid entirely from State and local funds throughout the country was slightly smaller in June 1952 than in June 1951. Actually a decrease occurred in only 16 States. Of these, only 5 had decreases of 10 or more employees.

Twenty-four States paid more staff members entirely from State and local funds in June 1952 than in June of the preceeding year. Included among these 24 States are 7 that used only non-Federal funds for added staff, 4 that paid more staff from State and local funds although they did not increase their total number of employees, and 13 States that used funds from all sources -- Federal, State and local -- to enlarge their staffs. In the remaining 9 States there was no change in the number of employees paid entirely from State and local funds.

An analysis of types of funds used for staff does not give a complete picture of the way the public child welfare program is financed. States and localities expend large sums of money for payments for the care of children. Only a negligible amount of Federal money goes into these payments. Thus many States which use their Federal grants for staff are able to channel more State and local money into child care payments.

By June 30, 1952, one job in three was financed in whole or part by Federal child welfare services funds. The extent to which Federal child welfare services funds paid for full-time public child welfare employees varied from State to State. In the 23 States with 50 or more such employees <sup>4/</sup> the proportion of total staff paid from Federal child welfare services funds ranged from less than 10 percent in New York, Indiana, Massachusetts, District of Columbia and Minnesota to 80 percent or more in Mississippi, North Carolina, Iowa, Texas and Alabama. More than four-fifths of all public child welfare employees in the country were working in these 23 large States. In the remaining States, those with fewer than 50 employees each, the proportion of staff paid in whole or part from Federal funds also varied. In general, the States with smaller staffs tended to have a relatively higher proportion paid in whole or part by Federal child welfare services funds.

Federal funds support proportionately more staff in low-income and in rural States

There is a close relationship between the per capita income of the State and the extent to which Federal child welfare services funds are used to pay for the full-time public child welfare staff. States with low per capita incomes have proportionately more staff paid in whole or part from

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<sup>4/</sup> Excludes California, Kentucky, and Pennsylvania for which reports were incomplete.

Federal funds than those with high per capita incomes:

States grouped by annual per capita incomes <u>1/</u>	Total public child welfare employees	Public child welfare employees paid in whole or part by Federal child welfare services funds	
		Number	Percent of total employees
Total.....	<u>2/</u> 4,219	1,319	31.3
Less than \$1,100..... Miss., Ark., Ala., S.C., N.C., Tenn.	392	324	82.7
\$1,100 - \$1,299..... Ga., La., W.Va., Okla., Fla., Va., Maine	510	294	57.6
\$1,300 - \$1,499..... N.Mex., Vt., Idaho, N.Dak., Tex., Utah, Ariz., N.H., Kans., Minn.	465	222	47.7
\$1,500 - \$1,699..... Nebr., Mo., S.Dak., Iowa, Colo., Wis., Ind., Oreg., R.I.	727	231	31.8
\$1,700 - \$1,899..... Wyo., Mich., Mass., Mont., Wash., Ohio, N.J.	844	140	16.6
\$1,900 - or more..... Ill., N.Y., Conn., Nev., Del., D.C.	1,281	108	8.4

1/ U.S. Department of Commerce, Office of Business Economics, Survey of Current Business, August 1952, p. 17. Per capita income for 1951.

2/ Excludes California, Kentucky, Maryland, Pennsylvania, for which reports were incomplete, and the territories.

Federal funds thus appear to carry a greater share of the personnel costs of the public child welfare program in those States which are probably less able to support these programs themselves. Federal funds also appear to support proportionately more staff in the rural than in the urban States:

States grouped by percent of population living in cities of 50,000 or more <sup>1/</sup>	Total public child welfare employees	Public child welfare employees paid in whole or part by Federal child welfare services funds	
		Number	Percent of total employees
Total.....	2/ 4,386	1,425	32.5
Most rural States -- Less than 16 percent of the population live in cities of 50,000 or more -- N.H., Ariz., N.Mex., N.C., W.Va., S.C., Maine, S.Dak., Ark., Miss., Idaho, Mont., Nev., N.Dak., Vt., Wyo., Ala., V.I.	604	444	73.5
Middle States -- 16 to 33 percent of the population live in cities of 50,000 or more -- Wash., Minn., La., Ind., Wis., Nebr., Fla., Tenn., Oreg., Va., P.R., Ala., Kans., Ga., Okla., Iowa	1,541	610	39.6
Most urban States -- 33 percent or more of the population live in cities of 50,000 or more -- D.C., N.Y., R.I., Mass., Ill., Hawaii, Mich., Ohio, Conn., Mo., Colo., N.J., Tex., Del., Utah	2,241	371	16.6

<sup>1/</sup> Bureau of the Census, 1950 Population Census Report, Series P-A.

<sup>2/</sup> Excludes California, Kentucky, Maryland and Pennsylvania for which reports are incomplete.

Federal child welfare services funds -- as this tabulation shows -- help pay for nearly 3 out of 4 public child welfare employees in the Nation's most rural States. In the most urban States, these funds pay for only one job in six. Federal funds, therefore, appear to be making it possible for the States with low income and a high proportion of rural population to provide public social services for the children who need them. In so doing, the Federal grants fulfill the purposes of title V, part 3 of the Social Security Act -- to help States with large rural child populations.

#### More rural counties have full-time child welfare workers

In June 1952, 1,599, or about half, of the 3,187 counties of the United States and its territories had full-time public child welfare workers. Some of those workers served only part of a county; some served all of a county or several counties. Seventy-three percent of the Nation's children lived in these counties.

There were 107 more counties with full-time public child welfare workers in June 1952 than in June 1951. Nearly all of these 107 counties were rural. 5/ Thus many of the additional child welfare workers employed by States have been assigned to work in rural counties which had previously been without full-time public child welfare workers.

This increase in the number of rural counties with full-time public child welfare workers brought the total number of such counties to 1,140, or 46 percent of the 2,489 rural counties of the country. Two-thirds of the urban counties had full-time public child welfare workers. Thus, even though additional rural counties are receiving services from full-time public child welfare workers, proportionately more of the rural counties than of the urban counties are still without these services. General welfare workers, primarily public assistance workers, may be serving children in some of the counties which do not have full-time public child welfare workers.

#### Staff turnover and vacancies are still problems

Two of the staffing problems which continue to trouble public child welfare agencies are turnover and vacancies.

Public child welfare staffs have tended to have a large proportion of new workers. For every 100 employees staffing public child welfare programs, 33 were new employees who began working for the agency during the year ending June 30, 1952. This accession rate is, of course, an index of expansion as well as turnover. In either event, however, accession of new staff by an agency means that orientation must be provided. The third of staff who

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5/ For purposes of this analysis a county is considered rural when at least half of the population of the county has been classified by the Bureau of the Census as living in rural places.

are new to the agency each year have to learn its program, its procedures, and its way of working. They have to get to know the children and the families of the children they are employed to help.

Vacancies, which frequently result in interruptions in services to children, were also a problem in that they continued to be numerous. On June 30, 1952, more than 600 -- or 1 in every 8 -- professional public child welfare positions were vacant. A year prior, there had been 1 vacancy in each 10 such positions.

For caseworkers, who account for nearly three-fourths of all public child welfare positions, the proportion of vacant positions on June 30, 1952 was also 1 in 8. But for consultants, a position which requires great skill and advanced professional training, the situation was even worse. One in every 5 positions was vacant. On June 30, 1951, this proportion had been 1 in 6. Supervisory positions, many of which are in the larger city agencies, were more completely filled; only 1 supervisor's position in 10 was vacant on June 30, 1952.

Many factors probably affect vacancy rates. For example, workloads, type and quality of supervision, and salaries may all determine to some degree the extent to which jobs go begging. An examination of the relationship between salaries and vacancies in the 21 States with at least 50 public child welfare caseworkers shows that vacancy rates are not influenced by salaries alone. There is a relationship between vacancies and salaries but it is not a close one. 6/ In other words, although vacancies tend to be fewer in those States where salaries are higher, there are a few States among those paying higher salaries that also have many unfilled jobs. The converse is true for some of the States offering low salaries. This would seem to indicate that although there is a relationship between high salaries and low vacancy rates, other factors would have to be analyzed before variations in vacancy rates among States could be fully explained.

#### Service loads continued to decrease

On the average, each public child welfare worker was providing service to 53 children, on June 30, 1952. In June 1951, the average (median) service load was 55. This drop in size of service load continued the trend evident for the past several years. It probably reflects the growing realization that smaller service loads make possible a better quality of service to children.

Despite this promising trend toward service loads small enough to permit full consideration of the individual needs of each child, as well as of the family problems affecting the child, many workers were still responsible for large numbers of children. Throughout the country over 300 workers (11 percent of all workers) had service loads consisting of at least 100 children. In 8 States, (Alabama, New Hampshire, New Jersey, North Carolina, North Dakota, Puerto Rico, South Carolina and West Virginia) the situation was even

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6/ The rank correlation is: minus .55

worse. In these States more than one-fourth of the workers had 100 or more children in their service loads.

Salaries as well as service loads are among the quantitative measures of an agency's standards. Small service loads (service loads below the National average of 53) are frequently found in those States that pay caseworkers more than \$268 per month, which is the National average. The following table, which ranks the States with 50 or more caseworkers by median monthly salary, illustrates this point:

State	Median monthly salary	Median number of children per worker
United States, Total...	\$ 268	53
States with 50 or more public child welfare workers <u>1/</u> --		
Median salary below National median <u>2/</u>		
Puerto Rico.....	Less than \$ 175	80
West Virginia.....	211	72
Mississippi.....	214	40
North Carolina.....	237	79
Virginia.....	237	50
Indiana.....	238	67
Missouri.....	241	53
Tennessee.....	246	34
Alabama.....	260	140
Ohio.....	260	56
Median salary above National median		
Texas.....	278	46
Illinois.....	280	36
Connecticut.....	281	49
Louisiana.....	288	43
Washington.....	303	45
Minnesota.....	315	46
Massachusetts.....	333	58
Wisconsin.....	343	51
District of Columbia	350 or more	60
Michigan.....	350 or more	28

1/ Excludes California and Kentucky for which reports were incomplete.

2/ Excludes New York where service load data were not available.

Thus only 2 of the 10 States tabulated above as paying caseworkers more than \$268 per month (the National median) had average service loads consisting of more than 53 children. In contrast, 7 of the 10 States listed as paying lower than average salaries, had average service loads above the National median. In general, the provision of above average salaries is usually accompanied by small service loads per worker.

### Summary

By June 30, 1952, it was evident that full-time public child welfare services were increasingly available, especially in rural areas. While State and local funds continued to pay for most of the employees in the public child welfare program, Federal child welfare services funds were making it possible for State and local public welfare agencies to expand their staffs.

The service loads assigned to individual workers were becoming more manageable in size. However, staff turnover and vacancies remained a serious problem. The problem of recruiting and holding a fully qualified staff will have to be solved if services are to be extended to all children in need of the kind of help child welfare workers can provide.

Table 1.— EMPLOYEES IN THE PUBLIC CHILD WELFARE PROGRAMS, BY STATE AND TYPE OF POSITION, JUNE 1952 <sup>a/</sup>

State	Child welfare employees - devoting full time to CWS								General welfare workers - devoting some time to CWS			
	Total	Professional child welfare employees							Clerks	Total	Director-workers	Case workers
		Total	Directors	Director-workers	Case-workers	Super-visors	Consult-ants	Special-ists				
Total.....	6,302	4,866	121	75	3,599	571	378	122	1,436	3,422	903	2,519
Alabama.....	77	70	1	—	53	3	12	1	7	401	38	363
Alaska.....	8	6	—	—	5	1	—	—	2	8	6	2
Arizona.....	35	29	1	—	21	2	4	1	6	7	6	1
Arkansas.....	43	30	1	—	21	2	6	—	13	36	35	1
California.....	b/ 384	310	3	—	239	45	23	—	74	30	5	25
Colorado.....	52	46	1	—	30	5	7	3	6	21	21	—
Connecticut....	218	156	9	5	126	13	3	—	62	1	—	1
Delaware.....	31	22	1	—	17	4	—	—	9	1	—	1
Dist. of Col...	102	74	1	—	52	14	—	7	28	2	—	2
Florida.....	62	41	1	—	28	7	5	—	21	c/ 398	—	398
Georgia.....	67	49	1	—	37	—	9	2	18	66	49	17
Hawaii.....	34	29	1	—	23	3	2	—	5	94	—	94
Idaho.....	9	8	1	—	4	—	3	—	1	32	11	21
Illinois.....	330	270	5	—	204	35	19	7	60	1	—	1
Indiana.....	217	183	1	—	156	19	7	—	34	113	28	85
Iowa.....	80	68	1	—	48	1	15	3	12	78	66	12
Kansas.....	52	35	1	—	19	4	11	—	17	4	—	4
Kentucky.....	b/ 95	69	2	1	57	—	9	—	26	—	—	—
Louisiana.....	116	85	1	—	59	11	11	3	31	b/ 3	—	3
Maine.....	64	48	7	—	40	—	—	1	16	4	—	4
Maryland.....	b/ 32	32	—	—	29	3	—	—	—	b/ —	—	—
Massachusetts..	260	193	5	—	153	27	2	6	67	3	2	1
Michigan.....	153	116	4	—	76	8	16	12	37	52	—	52
Minnesota.....	259	202	3	—	157	30	11	1	57	174	50	124
Mississippi....	106	66	2	—	53	8	3	—	40	230	58	172
Missouri.....	127	85	2	—	63	18	1	1	42	147	58	89
Montana.....	16	14	1	—	7	—	6	—	2	54	41	13
Nebraska.....	42	33	2	—	22	3	5	1	9	129	75	54
Nevada.....	8	8	—	—	6	1	1	—	—	—	—	—
New Hampshire..	22	20	1	—	17	2	—	—	2	6	—	6
New Jersey.....	25	13	1	3	5	—	2	2	12	134	—	134
New Mexico.....	45	30	1	—	22	5	—	2	15	18	9	9
New York.....	1,009	751	12	—	545	114	71	9	258	6	—	6
North Carolina..	120	107	1	—	80	10	6	10	13	340	54	286
North Dakota...	12	12	—	—	7	—	3	2	—	74	45	29
Ohio.....	441	337	13	43	210	36	10	25	104	73	25	48
Oklahoma.....	71	42	4	—	28	2	7	1	29	—	—	—
Oregon.....	88	64	3	—	45	9	7	—	24	76	12	64
Pennsylvania....	b/ 98	69	3	18	40	1	6	1	29	2	—	2
Puerto Rico....	124	123	2	—	97	19	5	—	1	45	45	—
Rhode Island...	55	42	1	—	29	6	3	3	13	—	—	—
South Carolina..	44	37	1	—	31	3	2	—	7	198	—	198
South Dakota...	26	22	1	—	17	3	—	1	4	3	—	3
Tennessee.....	117	82	1	—	64	4	10	3	35	92	41	51
Texas.....	132	81	2	—	52	16	9	2	51	—	—	—
Utah.....	29	26	1	—	18	3	4	—	3	2	2	—
Vermont.....	26	22	1	—	20	—	1	—	4	—	—	—
Virgin Islands..	12	9	1	—	5	2	—	1	3	—	—	—
Virginia.....	143	121	3	—	92	15	9	2	22	201	93	108
Washington.....	168	159	2	—	128	22	7	—	9	8	3	5
West Virginia..	151	124	1	—	101	16	6	—	27	—	—	—
Wisconsin.....	252	184	5	5	131	16	18	9	68	31	8	23
Wyoming.....	13	12	1	—	10	—	1	—	1	24	17	7

<sup>a/</sup> As of the last pay-roll period in June 1952.<sup>b/</sup> Report did not include all employees.<sup>c/</sup> Includes all public assistance workers who may carry child welfare services when there are such cases in their areas, although at any one time there will be some workers who are not providing child welfare services.

Table 2.— PUBLIC CHILD WELFARE EMPLOYEES, BY SOURCE OF FUNDS FOR SALARIES OR TRAVEL,  
BY STATE, JUNE 1952 <sup>a/</sup>

State	Paid entirely from State and local funds			Paid in whole or in part from Federal CWS funds		
	Total	Professional Employees	Clerical Employees	Total	Professional Employees	Clerical Employees
Total.....	4,404	3,233	1,171	1,898	1,633	265
Alabama.....	4	4	-	73	66	7
Alaska.....	-	-	-	8	6	2
Arizona.....	23	17	6	12	12	-
Arkansas.....	2	-	2	41	30	11
California.....	333	260	73	51	50	1
Colorado.....	38	33	5	14	13	1
Connecticut.....	190	134	56	28	22	6
Delaware.....	9	-	9	22	22	-
District of Columbia...	95	68	27	7	6	1
Florida.....	39	18	21	23	23	-
Georgia.....	24	18	6	43	31	12
Hawaii.....	29	24	5	5	5	-
Idaho.....	-	-	-	9	8	1
Illinois.....	296	238	58	34	32	2
Indiana.....	201	171	30	16	12	4
Iowa.....	5	5	-	75	63	12
Kansas.....	20	3	17	32	32	-
Kentucky.....	-	-	-	95	69	26
Louisiana.....	62	41	21	54	44	10
Maine.....	45	29	16	19	19	-
Maryland.....	-	-	-	32	32	-
Massachusetts.....	241	179	62	19	14	5
Michigan.....	111	79	32	42	37	5
Minnesota.....	233	183	50	26	19	7
Mississippi.....	52	12	40	54	54	-
Missouri.....	44	30	14	83	55	28
Montana.....	7	5	2	9	9	-
Nebraska.....	35	28	7	7	5	2
Nevada.....	-	-	-	8	8	-
New Hampshire.....	8	6	2	14	14	-
New Jersey.....	2	-	2	23	13	10
New Mexico.....	21	6	15	24	24	-
New York.....	985	733	252	24	18	6
North Carolina.....	22	15	7	98	92	6
North Dakota.....	-	-	-	12	12	-
Ohio.....	407	303	104	34	34	-
Oklahoma.....	22	-	22	49	42	7
Oregon.....	70	46	24	18	18	-
Pennsylvania.....	36	12	24	62	57	5
Puerto Rico.....	38	37	1	86	86	-
Rhode Island.....	45	32	13	10	10	-
South Carolina.....	10	7	3	34	30	4
South Dakota.....	8	4	4	18	18	-
Tennessee.....	39	30	9	78	52	26
Texas.....	12	5	7	120	76	44
Utah.....	15	12	3	14	14	-
Vermont.....	15	11	4	11	11	-
Virgin Islands.....	-	-	-	12	9	3
Virginia.....	87	67	20	56	54	2
Washington.....	142	133	9	26	26	-
West Virginia.....	62	43	19	89	81	8
Wisconsin.....	215	147	68	37	37	-
Wyoming.....	5	5	-	8	7	1

<sup>a/</sup> For scope and limitations of data, see table 1.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 3.— PUBLIC CHILD WELFARE EMPLOYEES IN PROFESSIONAL POSITIONS, BY SOURCE OF FUNDS FOR SALARIES OR TRAVEL,  
BY STATE AND TYPE OF POSITION, JUNE 1952 <sup>a/</sup>

State	Paid entirely from State and local funds						Paid in whole or in part from Federal OWS funds					
	Total	Directors	Case- workers <sup>b/</sup>	Super- visors	Consult- ants	Special- ists	Total	Directors	Case- workers <sup>c/</sup>	Super- visors	Consult- ants	Special- ists
Total...	3,233	82	2,565	393	132	61	1,633	39	1,109	178	246	61
Alabama.....	4	1	-	3	-	-	66	-	53	-	12	1
Alaska.....	-	-	-	-	-	-	6	-	5	1	-	-
Arizona.....	17	1	14	-	1	1	12	-	7	2	3	-
Arkansas.....	-	-	-	-	-	-	30	1	21	2	6	-
California.....	260	2	215	31	12	-	50	1	24	14	11	-
Colorado.....	33	1	30	2	-	-	13	-	-	3	7	3
Connecticut....	134	7	113	11	3	-	22	2	18	2	-	-
Delaware.....	-	-	-	-	-	-	22	1	17	4	-	-
Dist. of Col....	68	1	51	9	-	7	6	-	1	5	-	-
Florida.....	18	1	14	1	2	-	23	-	14	6	3	-
Georgia.....	18	1	16	-	-	1	31	-	21	-	9	1
Hawaii.....	24	-	22	2	-	-	5	1	1	1	2	-
Idaho.....	-	-	-	-	-	-	8	1	4	-	3	-
Illinois.....	238	3	182	32	17	4	32	2	22	3	2	3
Indiana.....	171	1	152	16	2	-	12	-	4	3	5	-
Iowa.....	5	-	2	-	-	3	63	1	46	1	15	-
Kansas.....	3	1	-	-	2	-	32	-	19	4	9	-
Kentucky.....	-	-	-	-	-	-	69	2	58	-	9	-
Louisiana.....	41	1	29	10	1	-	44	-	30	1	10	3
Maine.....	29	4	24	-	-	1	19	3	16	-	-	-
Maryland.....	-	-	-	-	-	-	32	-	29	3	-	-
Massachusetts..	179	4	153	20	-	2	14	1	-	7	2	4
Michigan.....	79	4	55	8	6	6	37	-	21	-	10	6
Minnesota.....	183	3	149	28	3	-	19	-	8	2	8	1
Mississippi....	12	-	12	-	-	-	54	2	41	8	3	-
Missouri.....	30	1	27	1	-	1	55	1	36	17	1	-
Montana.....	5	1	4	-	-	-	9	-	3	-	6	-
Nebraska.....	28	2	22	3	1	-	5	-	-	-	4	1
Nevada.....	-	-	-	-	-	-	8	-	6	1	1	-
New Hampshire..	6	-	5	1	-	-	14	1	12	1	-	-
New Jersey.....	-	-	-	-	-	-	13	1	8	-	2	2
New Mexico.....	6	-	5	-	-	1	24	1	17	5	-	1
New York.....	733	11	544	114	55	9	18	1	1	-	16	-
North Carolina..	15	1	9	1	3	1	92	-	71	9	3	9
North Dakota...	-	-	-	-	-	-	12	-	7	-	3	2
Ohio.....	303	12	244	32	3	12	34	1	9	4	7	13
Oklahoma.....	-	-	-	-	-	-	42	4	28	2	7	1
Oregon.....	46	1	37	5	3	-	18	2	8	4	4	-
Pennsylvania...	12	-	12	-	-	-	57	3	46	1	6	1
Puerto Rico....	37	1	28	8	-	-	86	1	69	11	5	-
Rhode Island...	32	1	24	3	2	2	10	-	5	3	1	1
South Carolina..	7	1	5	1	-	-	30	-	26	2	2	-
South Dakota...	4	1	2	-	-	1	18	-	15	3	-	-
Tennessee.....	30	-	26	4	-	-	52	1	38	-	10	3
Texas.....	5	2	2	-	1	-	76	-	50	16	8	2
Utah.....	12	1	8	3	-	-	14	-	10	-	4	-
Vermont.....	11	1	9	-	1	-	11	-	11	-	-	-
Virgin Islands..	-	-	-	-	-	-	9	1	5	2	-	1
Virginia.....	67	1	54	9	1	2	54	2	38	6	8	-
Washington.....	133	2	113	17	1	-	26	-	15	5	6	-
West Virginia..	43	1	34	6	2	-	81	-	67	10	4	-
Wisconsin.....	147	5	113	12	10	7	37	-	23	4	8	2
Wyoming.....	5	-	5	-	-	-	7	1	5	-	1	-

<sup>a/</sup> For scope and limitations of data, see table 1.

<sup>b/</sup> Includes 47 director-workers.

<sup>c/</sup> Includes 28 director-workers.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 4.— PUBLIC CHILD WELFARE EMPLOYEES IN PROFESSIONAL POSITIONS, BY STATE, AND BY SOURCE OF FUNDS FOR SALARIES OR TRAVEL, JUNE 1951 and 1952

State	Total employees		Employees whose salaries or travel funds came from—			
			State and local funds entirely		Federal CWS funds (all or part)	
	1952	1951	1952	1951	1952	1951
Total.....	4,866	4,465	3,233	3,138	1,633	1,327
Alabama.....	70	57	4	5	66	52
Alaska.....	6	5	—	—	6	5
Arizona.....	29	30	17	11	12	19
Arkansas.....	30	30	—	1	30	29
California. a/...	310	127	260	100	50	27
Colorado.....	46	38	33	23	13	15
Connecticut.....	156	138	134	117	22	21
Delaware.....	22	19	—	—	22	19
Dist. of Col.....	74	70	68	65	6	5
Florida.....	41	44	18	21	23	23
Georgia.....	49	40	18	16	31	24
Hawaii.....	29	28	24	20	5	8
Idaho.....	8	8	—	—	8	8
Illinois.....	270	266	238	244	32	22
Indiana.....	183	179	171	170	12	9
Iowa.....	68	63	5	43	63	20
Kansas.....	35	33	3	1	32	32
Kentucky. a/.....	69	69	—	9	69	60
Louisiana.....	85	74	41	43	44	31
Maine.....	48	46	29	28	19	18
Maryland. a/.....	32	28	—	—	32	28
Massachusetts....	193	192	179	183	14	9
Michigan.....	116	118	79	85	37	33
Minnesota.....	202	192	183	180	19	12
Mississippi.....	66	60	12	—	54	60
Missouri.....	85	89	30	42	55	47
Montana.....	14	18	5	5	9	13
Nebraska.....	33	33	28	24	5	9
Nevada.....	8	8	—	—	8	8
New Hampshire....	20	18	6	4	14	14
New Jersey.....	13	12	—	—	13	12
New Mexico.....	30	28	6	15	24	13
New York.....	751	765	733	745	18	20
North Carolina...	107	85	15	13	92	72
North Dakota.....	12	12	—	—	12	12
Ohio.....	337	315	303	286	34	29
Oklahoma.....	42	43	—	5	42	38
Oregon.....	64	63	46	42	18	21
Pennsylvania. a/..	69	62	12	12	57	50
Puerto Rico.....	123	100	37	36	86	64
Rhode Island....	42	41	32	32	10	9
South Carolina...	37	32	7	4	30	28
South Dakota.....	22	25	4	3	18	22
Tennessee.....	82	80	30	33	52	47
Texas.....	81	79	5	24	76	55
Utah.....	26	23	12	8	14	15
Vermont.....	22	22	11	9	11	13
Virgin Islands...	9	8	—	—	9	8
Virginia.....	121	112	67	63	54	49
Washington.....	159	150	133	132	26	18
West Virginia....	124	112	43	95	81	17
Wisconsin.....	184	162	147	134	37	28
Wyoming.....	12	14	5	7	7	7

a/ Report for 1951 and 1952 did not include all full-time child welfare employees paid entirely from local funds.

Note: This table includes only employees who devoted full time to the child welfare services program.

Table 5.— VACANT CHILD WELFARE POSITIONS IN THE PUBLIC WELFARE PROGRAMS, BY STATE  
AND TYPE OF POSITION, JUNE 1952 <sup>a/</sup>

State	Total	Professional child welfare positions						Clerks
		Total	Directors	Caseworkers	Supervisors	Consultants	Specialists	
Total.....	728	625	12	471	52	85	5	103
Alabama.....	13	13	-	11	-	2	-	-
Alaska.....	1	1	-	-	-	1	-	-
Arizona.....	2	2	-	-	-	-	-	-
Arkansas.....	13	13	-	9	-	4	-	-
California.....	b/	b/	b/	b/	b/	b/	b/	b/
Colorado.....	9	9	-	5	1	3	-	-
Connecticut.....	1	1	1	-	-	-	-	-
Delaware.....	2	2	-	2	-	-	-	-
Dist. of Col.....	4	1	-	-	-	-	1	3
Florida.....	11	11	-	9	1	1	-	-
Georgia.....	22	20	-	16	-	4	-	2
Hawaii.....	9	9	-	7	1	1	-	-
Idaho.....	-	-	-	-	-	-	-	-
Illinois.....	74	67	-	54	11	1	1	7
Indiana.....	6	6	1	2	-	3	-	-
Iowa.....	21	21	-	19	-	2	-	-
Kansas.....	7	6	1	-	1	4	-	1
Kentucky.....	-	-	-	-	-	-	-	-
Louisiana.....	14	13	-	11	1	1	-	1
Maine.....	9	6	2	4	-	-	-	3
Maryland.....	2	2	-	2	-	-	-	-
Massachusetts.....	2	1	-	-	-	-	1	1
Michigan.....	9	9	-	9	-	-	-	-
Minnesota.....	11	11	-	7	1	3	-	-
Mississippi.....	25	12	-	10	2	-	-	13
Missouri.....	14	13	-	9	4	-	-	1
Montana.....	14	14	1	12	-	1	-	-
Nebraska.....	2	2	-	2	-	-	-	-
Nevada.....	6	6	-	5	1	-	-	-
New Hampshire.....	-	-	-	-	-	-	-	-
New Jersey.....	2	2	-	1	-	1	-	-
New Mexico.....	2	2	-	1	-	1	-	-
New York.....	117	77	3	49	6	19	-	40
North Carolina.....	26	26	-	22	1	3	-	-
North Dakota.....	8	8	1	3	-	4	-	-
Ohio.....	20	19	1	12	-	5	1	1
Oklahoma.....	34	26	-	20	-	5	1	8
Oregon.....	16	15	-	9	3	3	-	1
Pennsylvania.....	12	12	-	10	1	1	-	-
Puerto Rico.....	42	42	-	36	5	1	-	-
Rhode Island.....	1	1	-	1	-	-	-	-
South Carolina.....	28	24	-	21	3	-	-	4
South Dakota.....	-	-	-	-	-	-	-	-
Tennessee.....	40	29	-	25	-	4	-	11
Texas.....	26	22	-	14	5	3	-	4
Utah.....	-	-	-	-	-	-	-	-
Vermont.....	-	-	-	-	-	-	-	-
Virgin Islands.....	-	-	-	-	-	-	-	-
Virginia.....	17	17	1	14	-	2	-	-
Washington.....	19	19	-	19	-	-	-	-
West Virginia.....	6	4	-	2	1	1	-	2
Wisconsin.....	6	6	-	2	3	1	-	-
Wyoming.....	3	3	-	3	-	-	-	-

<sup>a/</sup> For scope and limitations of data, see table 1.

<sup>b/</sup> Report did not include all vacant positions.

Note: This table includes only vacant positions to be filled by employees who devote full time to child welfare.

Table 6.— NUMBER OF ACCESSIONS AND SEPARATIONS OF PUBLIC CHILD WELFARE EMPLOYEES,  
BY STATE AND TYPE OF POSITION, JUNE 1952 a/

State	Accessions				Separations			
	Total	Professional child welfare employees		Clerical employees	Total	Professional child welfare employees		Clerical employees
		Total	Case-workers <u>b/</u>			Total	Case-workers <u>c/</u>	
Total.....	2,040	1,458	1,304	582	1,780	1,249	1,082	531
Alabama.....	27	26	25	1	14	13	12	1
Alaska.....	6	4	4	2	4	3	3	1
Arizona.....	20	19	18	1	21	20	20	1
Arkansas.....	23	13	13	10	20	13	13	7
California.....	<u>d/</u>	<u>d/</u>	<u>d/</u>	<u>d/</u>	<u>d/</u>	<u>d/</u>	<u>d/</u>	<u>d/</u>
Colorado.....	22	18	14	4	13	10	8	3
Connecticut.....	67	49	45	18	42	31	30	11
Delaware.....	15	6	5	9	3	3	3	—
Dist. of Col....	32	14	13	18	26	10	9	16
Florida.....	27	17	15	10	30	20	18	10
Georgia.....	23	18	18	5	18	13	12	5
Hawaii.....	8	7	7	1	7	6	4	1
Idaho.....	5	5	4	—	5	5	5	—
Illinois.....	109	93	79	16	103	89	80	14
Indiana.....	68	56	51	12	66	52	47	14
Iowa.....	32	27	20	5	28	23	17	5
Kansas.....	17	12	9	5	14	10	6	4
Kentucky.....	47	34	33	13	50	34	26	16
Louisiana.....	46	34	31	12	33	23	22	10
Maine.....	25	20	19	5	27	18	16	9
Maryland.....	23	23	20	—	19	19	17	—
Massachusetts...	48	27	25	21	42	24	22	18
Michigan.....	48	31	23	17	51	33	26	18
Minnesota.....	95	58	50	37	72	48	43	24
Mississippi.....	46	24	24	22	42	18	18	24
Missouri.....	40	20	18	20	30	24	18	6
Montana.....	8	5	5	3	12	9	8	3
Nebraska.....	19	12	10	7	21	12	9	9
Nevada.....	2	2	2	—	2	2	2	—
New Hampshire...	10	9	8	1	8	7	6	1
New Jersey.....	14	6	4	8	8	5	5	3
New Mexico.....	14	10	7	4	10	8	5	2
New York.....	219	163	157	56	253	180	162	73
North Carolina..	55	46	39	9	33	24	19	9
North Dakota....	4	4	2	—	4	4	2	—
Ohio.....	118	82	67	36	98	61	48	37
Oklahoma.....	37	18	18	19	43	21	20	22
Oregon.....	41	33	31	8	39	32	27	7
Pennsylvania....	43	31	26	12	31	24	21	7
Puerto Rico.....	45	45	45	—	22	22	17	—
Rhode Island....	17	13	12	4	16	12	12	4
South Carolina..	24	17	17	7	16	12	10	4
South Dakota....	16	9	9	7	19	12	10	7
Tennessee.....	53	26	23	27	49	24	18	25
Texas.....	71	34	29	37	71	32	23	39
Utah.....	5	5	3	—	2	2	2	—
Vermont.....	9	8	7	1	9	8	8	1
Virgin Islands..	12	6	5	6	11	5	5	6
Virginia.....	79	65	57	14	71	57	49	14
Washington.....	58	55	47	3	46	46	42	—
West Virginia...	57	41	39	16	43	28	25	15
Wisconsin.....	87	55	49	32	57	33	28	24
Wyoming.....	4	3	3	1	6	5	4	1

a/ Accessions and separations exclude employees who were separated but returned within the reporting period. For scope and limitations of data, see table 1.

b/ Includes 10 director-workers.

c/ Includes 8 director-workers.

d/ Not reported.

Note: This table includes only employees who devoted full time to the child welfare program.

Table 7.— PUBLIC CHILD WELFARE CASEWORKERS, BY STATE AND MONTHLY SALARY RATE, JUNE 1952 <sup>a/</sup>

Stats	Total caseworkers <sup>b/</sup>	Caseworkers receiving—							
		Less than \$175	\$175 199	\$200 224	\$225 249	\$250 274	\$275 299	\$300 324	\$325 or more
Total.....	3,631	122	139	401	620	732	551	486	580
Alabama.....	53	—	—	—	8	45	—	—	—
Alaska.....	5	—	—	—	—	—	—	—	5
Arizona.....	21	—	1	—	1	10	7	2	—
Arkansas.....	21	—	5	5	4	5	2	—	—
California.....	239	—	—	4	14	20	56	49	96
Colorado.....	30	—	—	2	2	6	12	3	5
Connecticut.....	131	—	—	2	1	51	51	23	3
Delaware.....	17	—	2	6	1	4	1	3	—
Dist. of Col.....	52	—	—	—	—	—	—	—	52
Florida.....	28	—	—	1	7	17	2	1	—
Georgia.....	37	—	2	9	14	6	6	—	—
Hawaii.....	23	—	—	—	3	3	7	8	2
Idaho.....	4	—	—	—	—	3	1	—	—
Illinois.....	204	—	—	12	6	74	54	41	17
Indiana.....	156	6	24	31	32	63	—	—	—
Iowa.....	48	—	—	10	17	6	12	3	—
Kansas.....	19	—	—	4	12	3	—	—	—
Kentucky.....	58	—	—	39	7	8	3	1	—
Louisiana.....	59	—	—	15	1	11	5	9	18
Maine.....	40	—	—	—	28	5	7	—	—
Maryland.....	29	—	—	12	3	7	7	—	—
Massachusetts.....	153	—	—	10	1	8	—	43	91
Michigan.....	76	—	—	—	—	—	6	21	49
Minnesota.....	157	—	—	—	3	26	36	23	69
Mississippi.....	53	8	13	10	14	8	—	—	—
Missouri.....	63	—	4	19	13	9	5	13	—
Montana.....	7	—	—	—	1	2	3	1	—
Nebraska.....	22	—	5	6	3	6	2	—	—
Nevada.....	6	—	—	—	—	—	2	1	3
New Hampshire.....	17	—	—	2	7	4	2	2	—
New Jersey.....	8	—	—	—	3	4	1	—	—
New Mexico.....	22	—	—	—	2	4	7	3	6
New York.....	545	5	14	39	180	98	88	109	12
North Carolina.....	80	—	—	16	49	15	—	—	—
North Dakota.....	7	—	—	—	—	1	3	2	1
Ohio.....	210	3	18	39	29	42	45	28	6
Oklahoma.....	28	—	—	2	5	10	2	3	6
Oregon.....	45	—	—	—	3	19	13	10	—
Pennsylvania.....	58	1	—	17	8	6	13	7	6
Puerto Rico.....	97	94	3	—	—	—	—	—	—
Rhode Island.....	29	—	—	7	—	11	3	4	4
South Carolina.....	31	—	—	16	15	—	—	—	—
South Dakota.....	17	—	—	—	3	8	3	—	3
Tennessee.....	64	—	—	—	38	12	11	3	—
Texas.....	52	—	—	1	8	15	19	9	—
Utah.....	18	—	—	—	1	4	5	8	—
Vermont.....	20	—	7	1	9	3	—	—	—
Virgin Islands.....	5	5	—	—	—	—	—	—	—
Virginia.....	92	—	8	20	39	19	6	—	—
Washington.....	128	—	—	—	1	29	28	45	25
West Virginia.....	101	—	32	41	16	7	4	—	1
Wisconsin.....	136	—	1	3	8	10	9	5	100
Wyoming.....	10	—	—	—	—	5	2	3	—

<sup>a/</sup> Salary refers to the monthly rate in effect in June 1952. For scope and limitations of data see table 1.

<sup>b/</sup> Includes 75 director-workers.

Note: This table includes only caseworkers who devoted full time to the child welfare services program.

Table 8.-- PUBLIC CHILD WELFARE WORKERS, BY STATE AND NUMBER OF CHILDREN SERVED, June 1952 <sup>a/</sup>

State	Total workers	Workers not directly serving children <sup>b/</sup>	Workers serving specified number of children				
			1-24	25-49	50-74	75-99	100 or more
Total Number.....	c/ 3,674	359	433	836	794	367	304
Percent <sup>d/</sup>	100.0	--	15.8	30.6	29.1	13.4	11.1
Alabama.....	53	--	2	2	2	6	41
Alaska.....	5	--	--	1	3	1	--
Arizona.....	21	2	1	--	4	10	4
Arkansas.....	21	2	4	5	6	3	1
California.....	c/ 239	88	25	36	24	24	6
Colorado.....	30	--	2	9	9	7	3
Connecticut.....	131	19	31	26	23	26	6
Delaware.....	17	--	1	11	1	2	2
District of Columbia.....	52	7	6	10	16	13	--
Florida.....	28	4	--	14	2	8	--
Georgia.....	37	1	8	9	12	3	4
Hawaii.....	23	7	--	--	9	3	4
Idaho.....	4	--	--	3	1	--	--
Illinois.....	204	42	47	76	39	--	--
Indiana.....	156	8	8	26	59	23	32
Iowa.....	48	3	11	13	14	6	1
Kansas.....	19	1	--	8	10	--	--
Kentucky.....	58	--	9	29	14	5	1
Louisiana.....	59	--	4	36	12	6	1
Maine.....	40	--	2	5	13	19	1
Maryland.....	29	1	12	14	1	1	--
Massachusetts.....	153	26	20	25	59	17	6
Michigan.....	76	4	34	19	17	2	--
Minnesota.....	157	32	16	55	37	10	7
Mississippi.....	53	7	14	15	11	2	4
Missouri.....	63	6	5	21	21	8	2
Montana.....	7	--	--	2	1	3	1
Nebraska.....	22	2	2	10	8	--	--
Nevada.....	6	--	5	1	--	--	--
New Hampshire.....	17	--	1	--	--	2	4
New Jersey.....	8	5	--	--	--	1	2
New Mexico.....	22	--	5	5	4	3	5
New York.....	545	c/	c/	c/	c/	c/	c/
North Carolina.....	80	c/ 4	c/ 4	c/ 13	c/ 19	c/ 14	c/ 26
North Dakota.....	7	1	--	--	1	1	14
Ohio.....	253	25	21	75	70	33	29
Oklahoma.....	28	2	15	5	2	1	3
Oregon.....	45	7	7	16	15	--	--
Pennsylvania.....	58	2	7	14	17	6	12
Puerto Rico.....	97	23	3	11	20	16	24
Rhode Island.....	29	2	1	3	9	13	1
South Carolina.....	31	--	3	5	5	9	9
South Dakota.....	17	1	4	7	3	1	1
Tennessee.....	64	3	19	32	10	--	--
Texas.....	52	3	11	16	14	6	2
Utah.....	18	1	--	5	12	--	--
Vermont.....	20	--	--	--	9	7	4
Virgin Islands.....	5	--	--	--	5	--	--
Virginia.....	92	3	7	37	39	2	4
Washington.....	128	7	31	37	47	5	1
West Virginia.....	101	2	12	15	26	19	27
Wisconsin.....	136	6	13	50	38	20	9
Wyoming.....	10	--	--	9	1	--	--

<sup>a/</sup> Table includes 3,599 caseworkers and 75 director-workers. For scope and limitations of data, see table 1.<sup>b/</sup> Includes home-finders, workers in orientation and others who are not providing services directly to children.<sup>c/</sup> Includes 36 workers in California, and 545 workers in New York for whom service load was not reported.<sup>d/</sup> Based on data excluding employees for whom service load was not reported.

Nota: This table includes only workers who devoted full time to the child welfare program.

Table 9.— URBAN AND RURAL COUNTIES SERVED BY PUBLIC CHILD WELFARE WORKERS, AND PERCENT OF STATE'S CHILD POPULATION LIVING IN THESE COUNTIES, JUNE 1952 a/

State	Number of counties in State	Number of counties served by child welfare workers			Percent of child population in counties served by child welfare workers <u>c/</u>
		Total	Urban counties <u>b/</u>	Rural counties	
Total Number.....	3,187	1,599	459	1,140	72.7
Percent.....	100.0	50.2	14.4	35.8	-
Alabama.....	67	39	7	32	76.5
Alaska.....	4	3	-	3	87.0
Arizona.....	14	8	4	4	83.9
Arkansas.....	75	19	3	16	42.1
California.....	58	57	21	36	99.9
Colorado.....	63	13	7	6	68.9
Connecticut.....	8	8	6	2	100.0
Delaware.....	3	3	1	2	100.0
District of Columbia...	1	1	1	-	100.0
Florida.....	67	11	10	1	59.9
Georgia.....	159	79	12	67	61.8
Hawaii.....	4	2	1	1	79.2
Idaho.....	44	7	1	6	29.6
Illinois.....	102	99	32	67	99.2
Indiana.....	92	50	20	30	79.7
Iowa.....	99	31	14	17	51.8
Kansas.....	105	11	6	5	34.8
Kentucky.....	120	103	7	96	90.3
Louisiana.....	64	51	9	42	87.0
Maine.....	16	16	6	10	100.0
Maryland.....	24	14	4	10	79.6
Massachusetts.....	14	14	11	3	100.0
Michigan.....	83	56	21	35	92.1
Minnesota.....	87	26	8	18	60.0
Mississippi.....	82	20	7	13	42.1
Missouri.....	115	30	8	22	64.3
Montana.....	56	6	5	1	32.9
Nebraska.....	93	93	10	83	100.0
Nevada.....	17	14	4	10	84.9
New Hampshire.....	10	10	5	5	100.0
New Jersey.....	21	13	8	5	32.3
New Mexico.....	32	14	5	9	72.3
New York.....	62	61	26	35	99.9
North Carolina.....	100	39	7	32	60.8
North Dakota.....	53	5	2	3	16.9
Ohio.....	88	53	25	28	84.7
Oklahoma.....	77	45	12	33	71.1
Oregon.....	36	10	2	8	66.9
Pennsylvania.....	67	18	3	15	18.4
Puerto Rico.....	77	76	9	67	99.9
Rhode Island.....	5	5	4	1	100.0
South Carolina.....	46	16	3	13	54.7
South Dakota.....	68	56	8	48	87.0
Tennessee.....	95	35	6	29	65.8
Texas.....	254	33	19	14	28.5
Utah.....	29	13	5	8	87.8
Vermont.....	14	14	2	12	100.0
Virgin Islands.....	2	2	1	1	100.0
Virginia.....	127	28	15	13	50.0
Washington.....	39	34	13	21	98.1
West Virginia.....	55	55	8	47	100.0
Wisconsin.....	71	71	18	53	100.0
Wyoming.....	23	9	7	2	60.7

a/ Table based on caseworkers and director-workers assigned to specific geographic areas. For scope and limitations of data, see table 1.

b/ Based on 1950 Census. An urban county is one in which at least 50 percent of the population are living in urban places as classified by the Bureau of the Census.

c/ Based on 1950 Census.

Note: This table includes only workers who devoted full time to the child welfare services program.





CHILDREN'S BUREAU  
STATISTICAL SERIES

NUMBER **18**

*juvenile  
court  
statistics*

*1950-52*

Juvenile court statistics **IN GENERAL** show the volume of delinquency, dependency or neglect and special proceedings cases (adoption, custody, etc.) disposed of by juvenile courts.

Because several factors affect the volume of cases referred to juvenile courts, the statistics by themselves do not measure completely the extent of delinquency, dependent or neglect situations in a community.

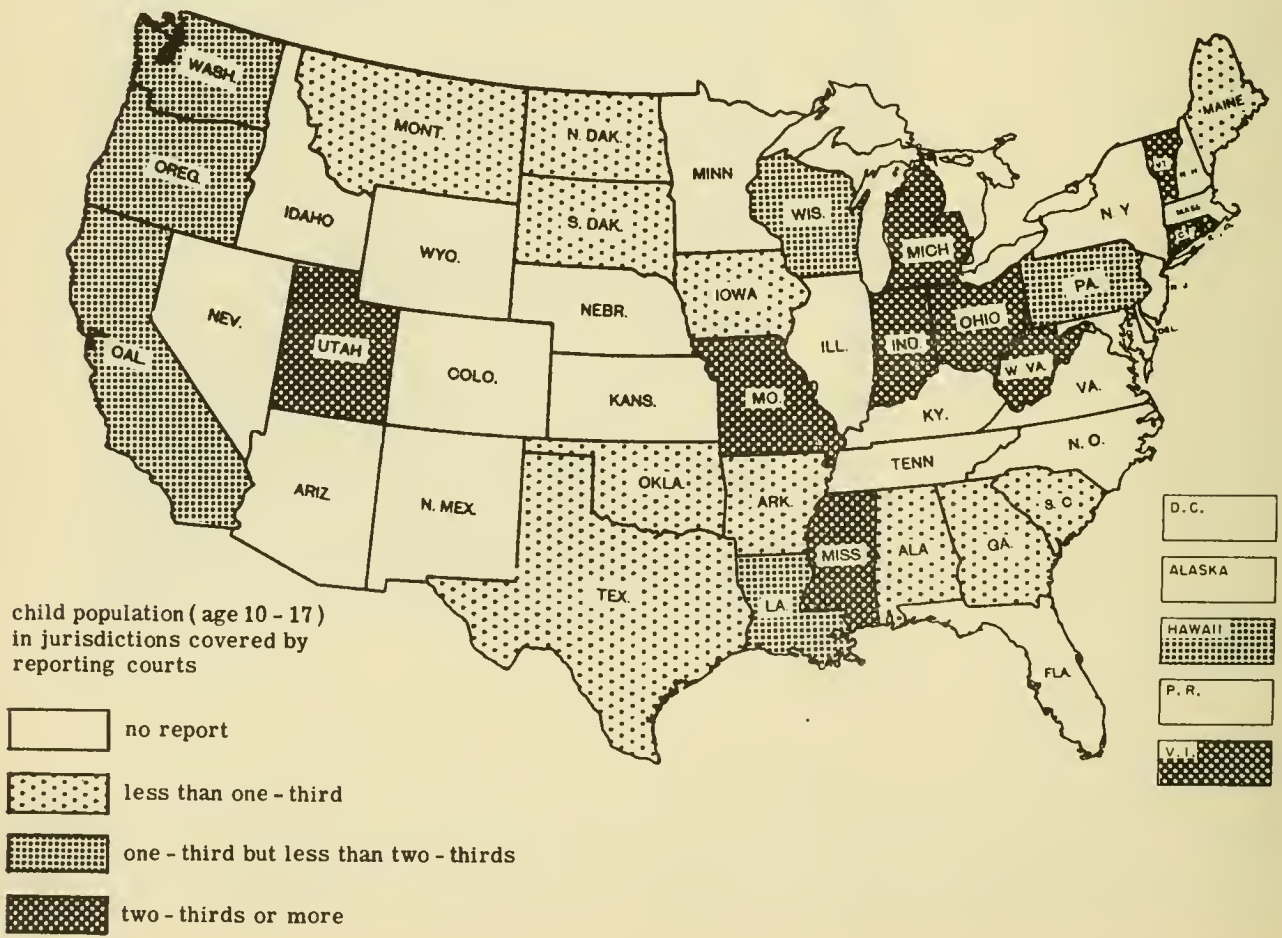
One factor affecting the number of cases referred to juvenile courts is the variation among communities in the organizational

pattern for child welfare services. For example, in one community with well-equipped child welfare agencies, the court may be used for only its judicial function; in another community, it may provide many services to children. Also, some communities have screening agencies, such as police juvenile aid bureaus, that may adjust the cases themselves or may refer them to community agencies other than the court.

Another factor affecting the volume of juvenile court cases is the age of children and the type of cases over which the courts have jurisdiction. These vary among courts and may even change for the same court.

**THE 586 COURTS REPORTING IN 1952 WERE LOCATED IN 29 STATES**

Their jurisdiction cover 29% of the child population of the 53 States



# *juvenile court statistics* | 1950-52

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report by I. RICHARD PERLMAN Division of Research

Juvenile court delinquency cases in 1952 were approaching World War II peaks as the number increased for the fourth consecutive year. Within a year's time (1951 - 52) the increase was 10 percent. Over the four-year period (1948 - 52) the jump was 28 percent.

Dependency and neglect cases also went up in 1952. The increase for that year over 1951 was 4 percent, continuing the rise which began in 1951.

These and other highlights of juvenile court statistics are presented in graphic form in this bulletin. For a more detailed discussion and interpretation of juvenile court data than appears in this bulletin see: Children's Bureau Statistical Series No. 8, "Juvenile Court Statistics, 1946 - 1949."

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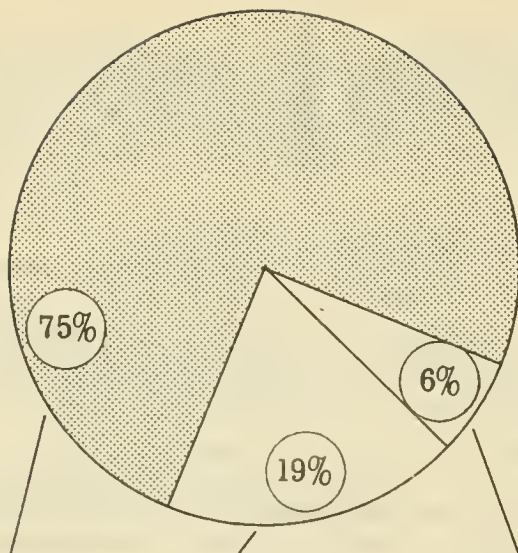
Juvenile court statistics  
IN THIS BULLETIN show the volume of delinquency, dependency or neglect and special proceedings for those courts that voluntarily transmitted "complete reports" to the Children's Bureau through State agencies. "Complete reports" are those that give information on all types of cases--delinquency, dependency or neglect and special proceedings--including cases disposed of unofficially as well as officially.

About 200 juvenile courts have sent in complete reports regularly for a number of years. The number of courts currently reporting is much larger and has increased recently. In 1951 there were 458, and in 1952,

586 courts which sent in complete reports. An additional 245 courts reported in 1952 on official cases only. Their data are shown in table 2 but are not included in the charts or other tables.

Charts showing trends are based on the information supplied by the smaller group of about 200 comparable courts. Other charts are based on data for the latest year available. For some this is 1951 and for others 1952. The year used is noted in each chart.

Because of the limited geographic coverage of the courts reporting (see map on opposite page) and because large urban areas are better represented than are the smaller rural areas, the data may not be representative of all courts in the country.



### Juvenile delinquency

Violation of the law, conduct interfering with rights of others or menacing the welfare of the delinquent himself or of the community, etc.

### Dependency and neglect

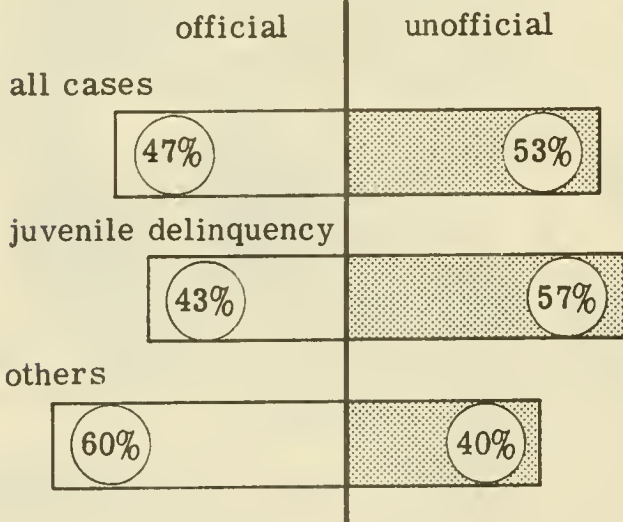
Lack of adequate care or support, abandonment or desertion, abuse or cruel treatment, etc.

### Special proceedings

Adoption, commitment of mentally defective children, consent to marry or enlist in armed services, determination of custody, etc.

1952 data (see table 1)

THREE - FOURTHS  
OF ALL  
JUVENILE COURT CASES  
WERE  
DELINQUENCY CASES



MORE THAN HALF  
OF ALL  
JUVENILE COURT CASES  
WERE  
HANDLED UNOFFICIALLY

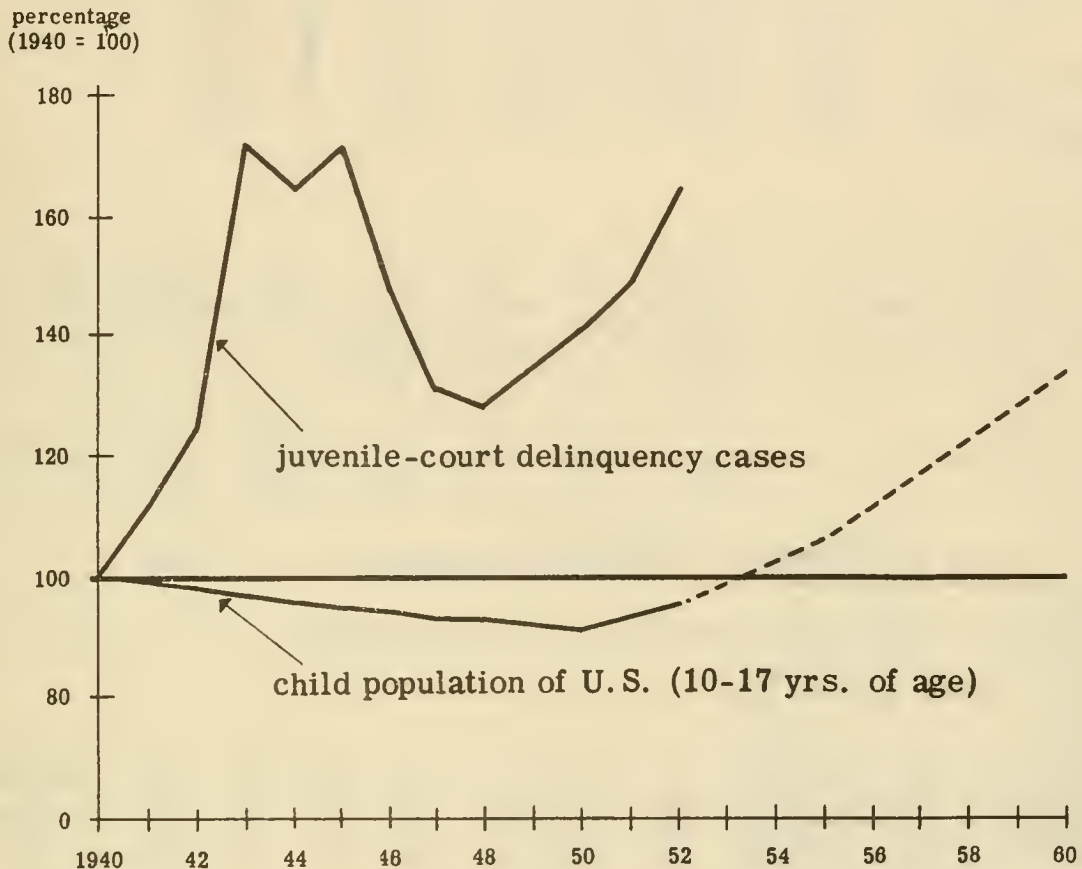
A referral to a court can be a disturbing experience for a child. Many unofficial cases that do not require the formal judgment of a court might preferably be handled by other community agencies equipped to deal with such cases.

1952 data (see table 1)

— without the filing  
of a petition for formal  
judicial hearing.

## JUVENILE DELINQUENCY CASES ARE RISING

An estimated 385,000 children (or about 2% of all children in the U. S. aged 10-17) were dealt with by juvenile courts in delinquency cases in 1952.



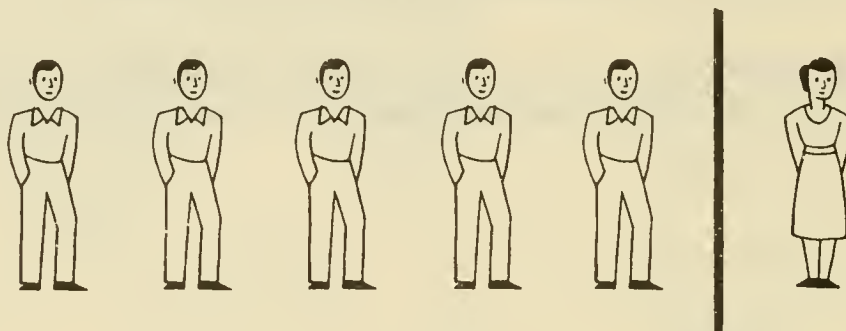
( see table 5 )

The increase in delinquency cases exceeds the increase in the child population.

By 1960, the child population 10-17 years of age (the predominant age group of delinquents) will be 40 percent higher than it was in 1952.

How will this population increase affect the future volume of delinquency?

## BOYS OUTNUMBER GIRLS ABOUT 5 TO 1 IN DELINQUENCY CASES.

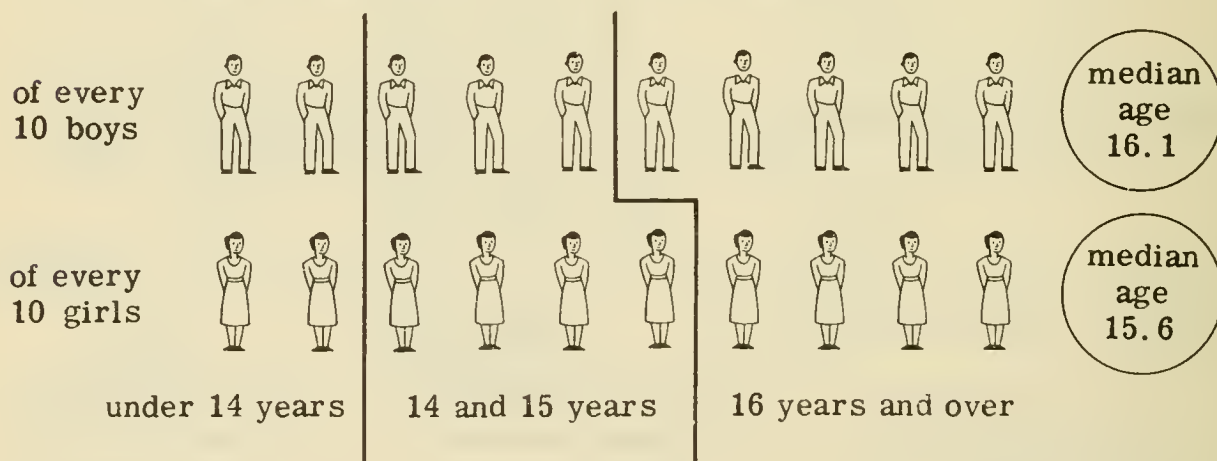


Boys are referred to courts mostly for stealing or malicious mischief. Such aggressive acts are more likely to come to a court's attention than are the be-

havior problems most frequently found among delinquent girls, such as ungovernable behavior, running away, and sex offenses.

1952 data

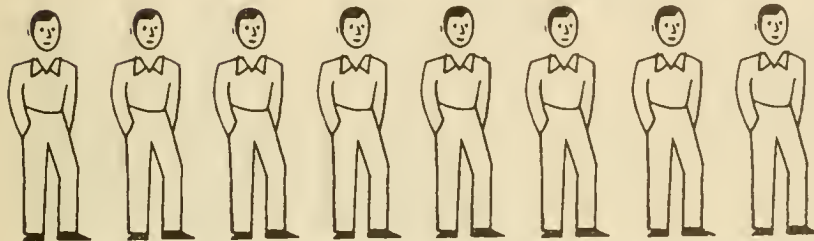
## MOST DELINQUENT CHILDREN BROUGHT TO COURT WERE 14 YEARS OF AGE OR OLDER.



1951 data  
(see table 6)

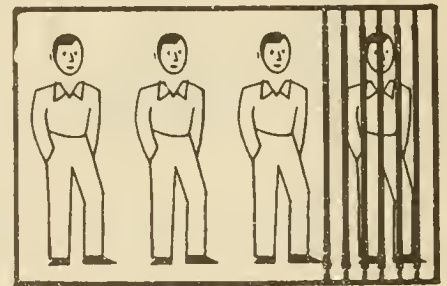
The average age for boys was slightly higher than that for girls.

One-third of the delinquent children  
were detained overnight or longer  
pending court hearing and -----



not detained

----- ONE IN  
EVERY 4  
OF THOSE  
DETAINED  
WERE HELD  
IN JAILS  
OR POLICE  
STATIONS



detained

in detention  
homes  
primarily

in jails  
or  
police  
stations

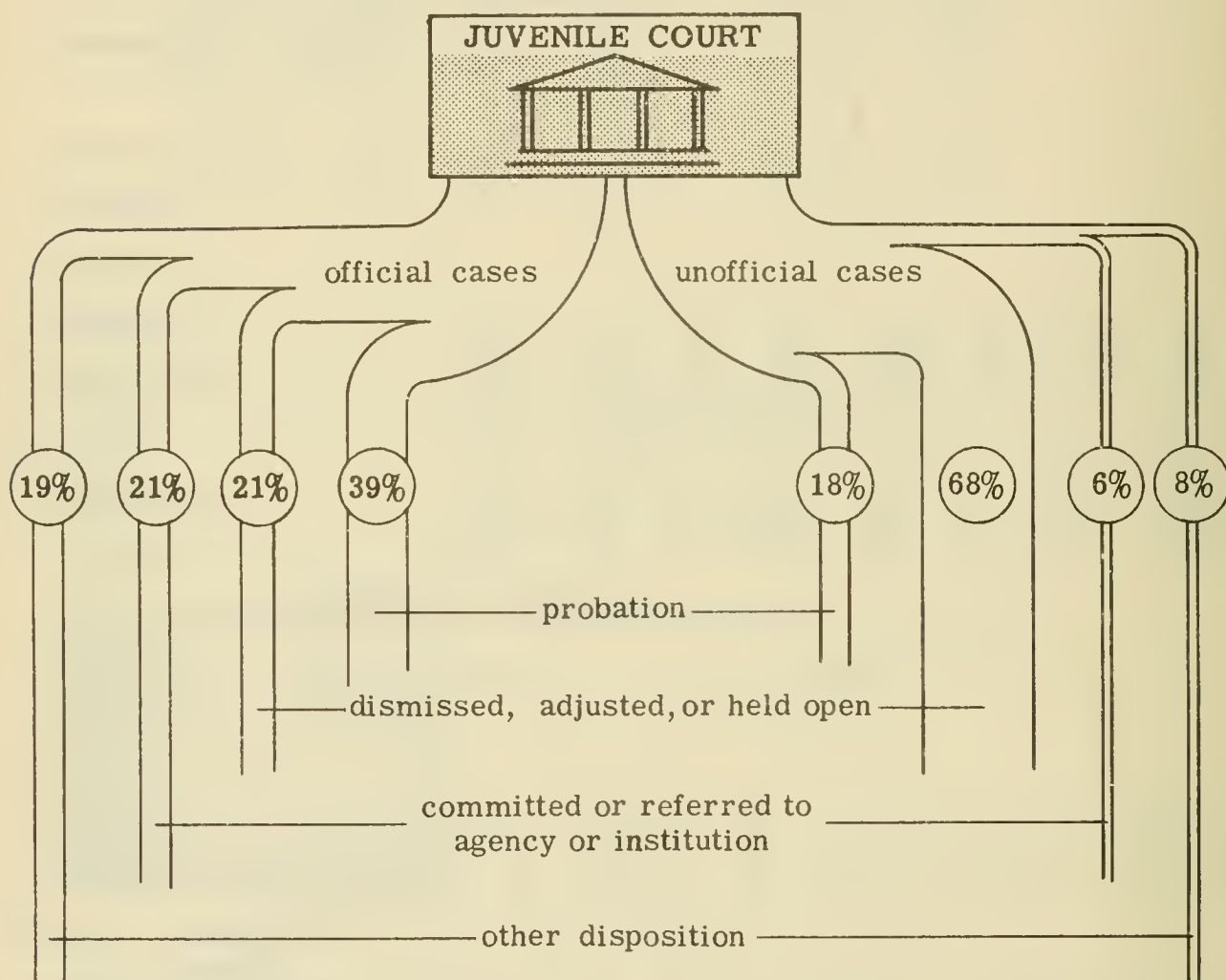
1951 data  
(see table 7)

An estimated 30,000 delinquent children are held in jails or police stations annually waiting for a court hearing. Another 70,000 are held in jails by police or other law enforcement agencies without referral

to a juvenile court. However, some of these may be awaiting hearing in another court, such as criminal court.

**MOST FREQUENT DISPOSITION  
OF OFFICIAL DELINQUENCY  
CASES WAS "PROBATION"**

**MOST UNOFFICIAL CASES WERE  
"DISMISSED" OR "ADJUSTED"**



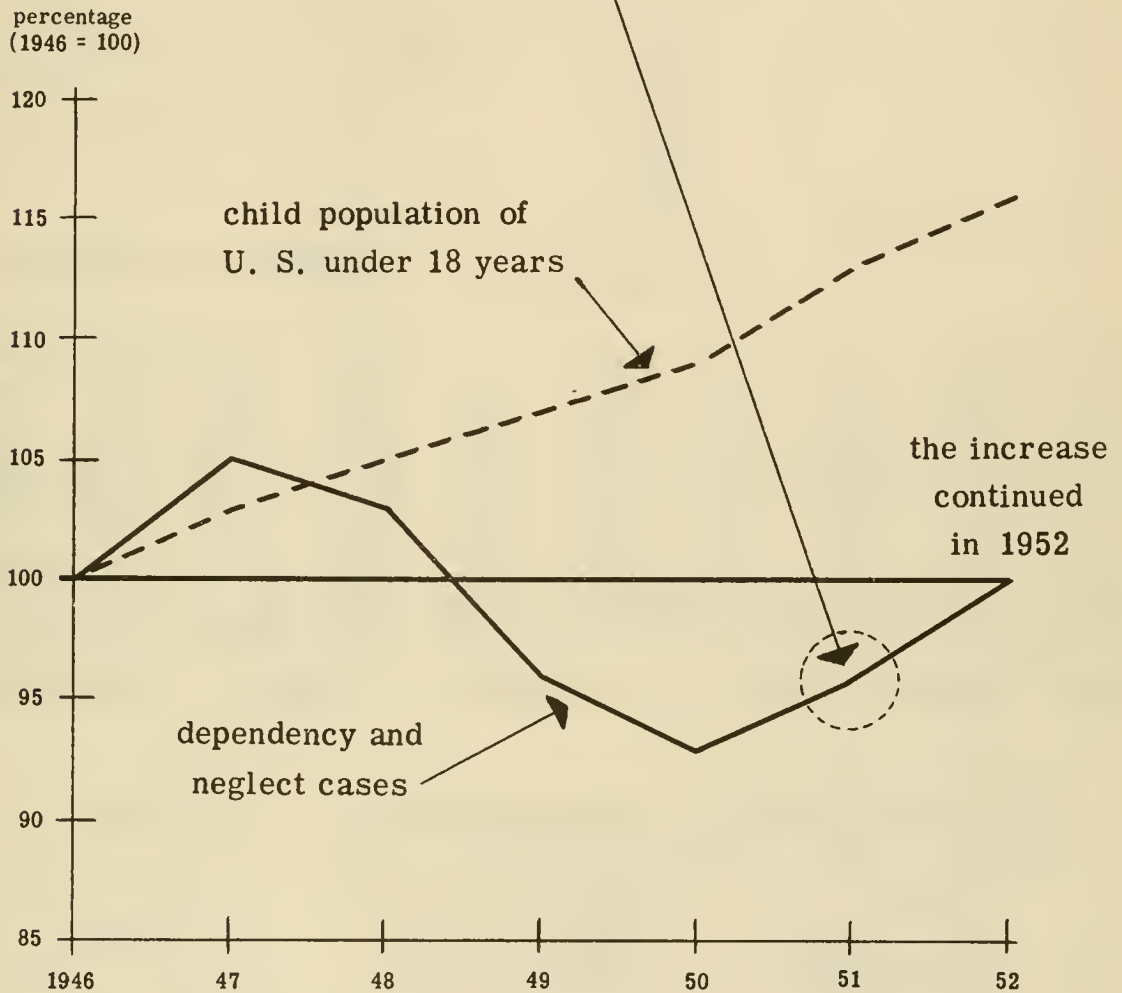
1951 data  
(see table 8)

The disposition of boys' and girls' cases differed considerably. Dismissals or adjustments were higher for boys; commitments or referrals to agencies or institutions were more frequent for girls. This difference is attributable in part to the different reasons for which

boys and girls are brought to court. Girls are usually referred because of sexual misconduct or related offenses. This is considered a more serious offense than stealing or malicious mischief, for which boys are most frequently referred.

# dependency and neglect

IN 1951, DEPENDENCY AND NEGLECT CASES INCREASED  
FOR THE FIRST TIME SINCE 1947



( see table 9 )

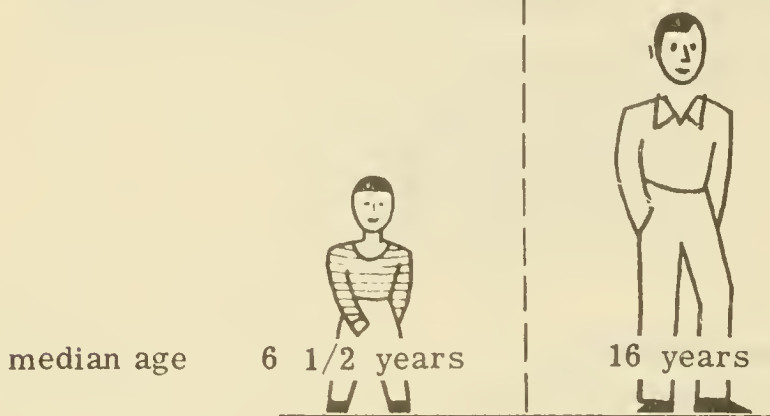
Since 1950 dependency and neglect cases have increased  
at about the same rate as the child population. (For this

chart the child population under 18 is used because this  
is the population at risk.)

# dependency and neglect

CHILDREN DEALT WITH IN  
DEPENDENCY AND NEGLECT  
CASES WERE MUCH YOUNGER

THAN THOSE DEALT WITH  
IN DELINQUENCY CASES

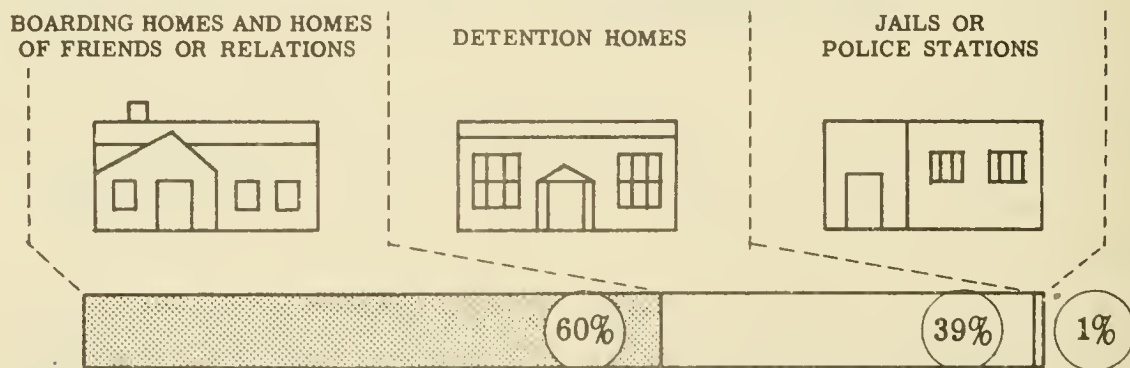


This age difference is to be expected from the difference in the nature of the two kinds of cases. The delinquent child comes to court because of anti-social behavior;

the dependent or neglected child because of inadequate care or support by the parents.

1951 data  
( see table 10 )

WHEN SHELTER CARE PENDING COURT HEARING WAS NEEDED FOR  
DEPENDENT AND NEGLECTED CHILDREN, THE MOST FREQUENT TYPE  
WAS BOARDING HOMES AND HOMES OF FRIENDS OR RELATIVES

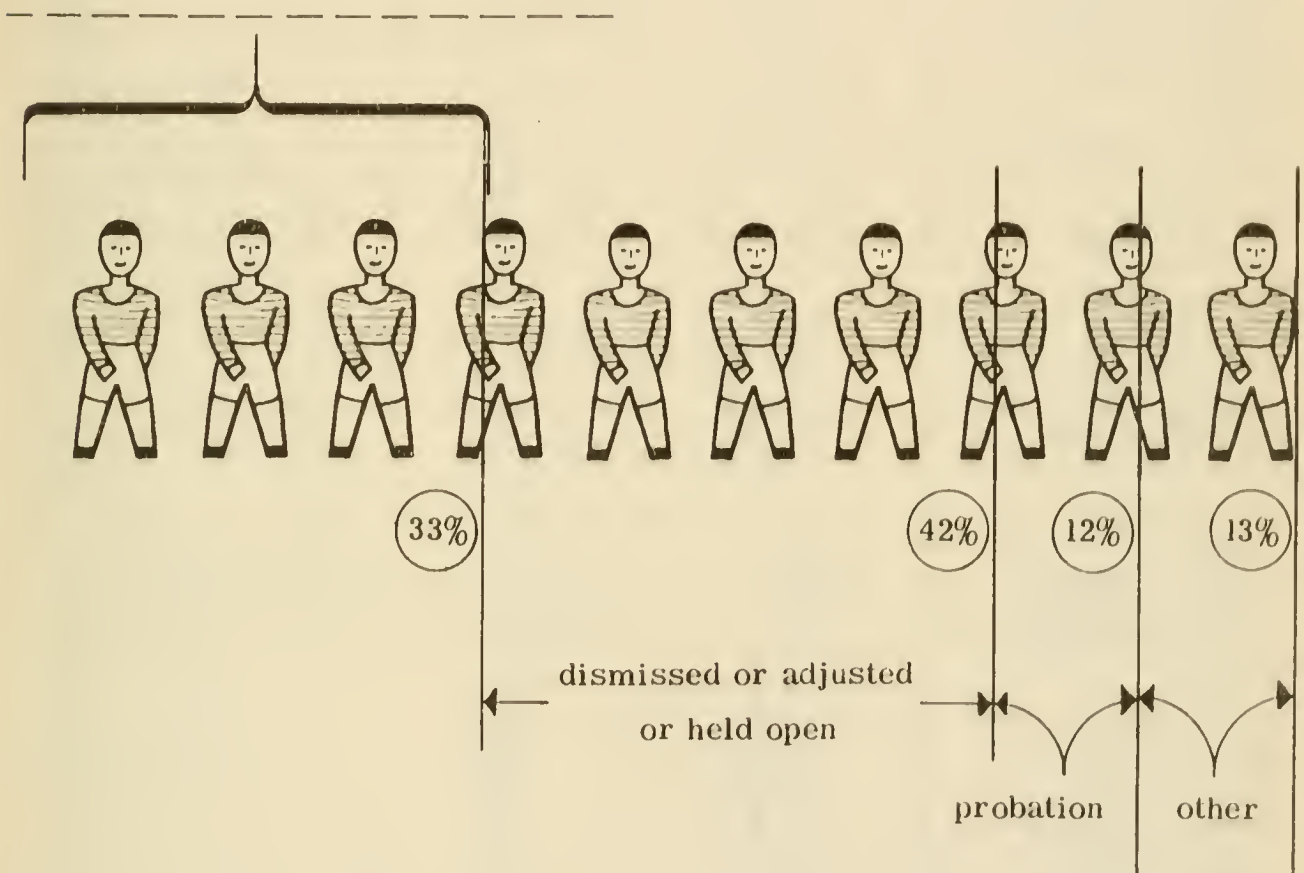


1951 data ( see table 11 )

But many dependent and neglected children were placed in detention

homes -- often with older delinquent children.

ONE-THIRD OF THE CHILDREN  
IN DEPENDENCY AND NEGLECT  
CASES ARE COMMITTED OR  
REFERRED TO ANOTHER AGENCY  
OR INSTITUTION FOR CARE



1951 data  
(see table 12)

Table 1.-- CHILDREN'S CASES, 1952: NUMBER OF DELINQUENCY, DEPENDENCY AND NEGLECT, AND SPECIAL PROCEEDINGS CASES DISPOSED OF OFFICIALLY AND UNOFFICIALLY BY 586 COURTS. a/

Area served by court b/	Age under which court has original jurisdiction	Total all cases	Delinquency cases			Dependency and neglect cases			Special proceedings cases		
			Total	Official	Un-official	Total	Official	Un-official	Total	Official	Un-official
Total cases.....	--	c/ 187,593	d/ 139,358	53,263	70,427	a/ 35,686	17,057	13,275	d/ 10,678	7,265	2,634
<b>ALABAMA:</b>											
Jefferson Co. (Birmingham).....	s/ 16,18	2,682	1,350	716	634	710	296	414	622	19	303
Mobile Co. (Mobile).....	16	1,027	692	368	324	335	172	163	--	--	--
Montgomery Co. (Montgomery).....	s/ 16,18	727	427	210	217	232	6	226	68	46	22
<b>ARKANSAS:</b>											
Pulaski Co. (Little Rock).....	21	1,437	738	254	484	696	133	563	3	--	3
7 small courts.....	21	402	327	243	84	58	37	21	17	14	3
<b>CALIFORNIA:</b>											
Alameda Co. (Oakland).....	21	7,406	5,586	1,028	4,558	1,513	476	1,037	307	10	297
Contra Costa Co. (Richmond).....	21	2,428	1,811	568	1,243	470	309	161	147	6	141
Fresno Co. (Fresno).....	21	992	706	488	218	204	186	18	82	1	81
Kern Co. (Bakersfield).....	21	2,409	2,055	788	1,267	297	186	111	57	3	54
Orange Co. (Santa Ana).....	21	1,872	1,466	316	1,150	273	76	197	133	7	126
Riverside Co. (Riverside).....	21	923	790	425	365	133	133	--	--	--	--
Sacramento Co. (Sacramento).....	21	1,715	1,457	306	1,151	252	185	67	6	3	3
San Bernardino Co. (S. Bernardino).....	21	1,330	1,222	596	626	106	101	5	2	1	1
San Diego Co. (San Diego).....	21	3,265	2,224	924	1,240	687	370	317	354	14	340
San Francisco Co. (S. Francisco).....	21	6,103	4,725	977	3,748	1,169	540	629	209	2	207
San Joaquin Co. (Stockton).....	21	426	323	296	27	98	85	13	5	2	3
Ventura Co. (Oxnard).....	21	1,107	904	149	755	127	103	24	76	2	74
12 small courts.....	21	2,863	2,262	1,030	1,232	479	295	184	122	8	114
<b>CONNECTICUT:</b>											
First District (Bridgeport).....	16	1,999	1,575	413	1,162	424	424	--	--	--	--
Second District (New Haven).....	16	2,116	1,621	470	1,151	495	495	--	--	--	--
Third District (Hartford).....	16	1,966	1,398	329	1,069	568	568	--	--	--	--
<b>GEORGIA:</b>											
Bibb Co. (Macon).....	17	1,362	701	255	446	661	237	424	--	--	--
Fulton Co. (Atlanta).....	17	2,303	1,589	696	893	714	470	244	--	--	--
Muscogee Co. (Columbus).....	17	979	693	106	587	281	5	276	5	5	--
1 small court.....	16	412	357	185	172	41	41	--	14	14	--
<b>HAWAII:</b>											
First Circuit (Honolulu).....	18	2,841	2,063	1,016	1,047	207	144	63	571	571	--
<b>INDIANA:</b>											
Allen Co. (Fort Wayne).....	18	535	535	245	290	--	--	--	--	--	--
Lake Co. (Gary).....	18	1,345	1,282	244	1,038	35	15	20	28	16	12
Madison Co. (Anderson).....	18	99	99	48	51	--	--	--	--	--	--
Marion Co. (Indianapolis).....	18	1,933	1,021	998	23	437	424	13	475	458	17
St. Joseph Co. (South Bend).....	18	220	195	181	14	25	25	--	--	--	--
Vanderburgh Co. (Evansville).....	18	455	452	74	378	3	1	2	--	--	--
Vigo Co. (Terre Haute).....	18	262	237	59	178	15	2	13	10	--	10
46 small courts.....	18	2,634	2,344	920	1,424	255	143	112	35	35	--
<b>IOWA:</b>											
Polk Co. (Des Moines).....	18	1,117	856	178	678	261	175	86	--	--	--
Woodbury Co. (Sioux City).....	18	656	374	215	159	282	192	90	--	--	--
3 small courts.....	18	399	239	83	156	160	91	69	--	--	--
<b>LOUISIANA:</b>											
First Jud. Dist. (Shreveport)...	17	508	286	175	111	120	103	17	102	102	--
Fourth Jud. Dist. (Monroe).....	17	494	212	95	117	268	187	81	14	14	--
Fourteenth Jud. Dist. (Lake Charles).....	17	492	334	29	305	98	31	67	60	23	37
Orleans Parish (New Orleans).....	17	789	498	404	94	209	181	28	82	69	13
3 small courts.....	17	53	10	10	--	40	40	--	3	3	--
<b>MAINE:</b>											
1 small court.....	17	318	237	120	117	81	81	--	--	--	--
<b>MICHIGAN:</b>											
Berrien Co. (Benton Harbor).....	17	449	a/ 295	--	--	a/ 154	--	--	--	--	--
Calhoun Co. (Battle Creek).....	17	423	a/ 261	--	--	a/ 162	--	--	--	--	--
Genesee Co. (Flint).....	17	673	a/ 388	--	--	a/ 285	--	--	--	--	--
Ingham Co. (Lansing).....	17	314	a/ 163	--	--	a/ 151	--	--	--	--	--
Jackson Co. (Jackson).....	17	313	a/ 180	--	--	a/ 133	--	--	--	--	--
Kalamazoo Co. (Kalamazoo).....	17	275	a/ 135	--	--	a/ 140	--	--	--	--	--
Keok Co. (Grand Rapids).....	17	661	a/ 373	--	--	a/ 288	--	--	--	--	--
Macomb Co. (East Detroit).....	17	383	a/ 275	--	--	a/ 108	--	--	--	--	--
Muskegon Co. (Muskegon).....	17	528	a/ 405	--	--	a/ 123	--	--	--	--	--
Oakland Co. (Pontiac).....	17	667	a/ 441	--	--	a/ 226	--	--	--	--	--
Saginaw Co. (Saginaw).....	17	460	a/ 253	--	--	a/ 207	--	--	--	--	--
Washtenaw Co. (Ann Arbor).....	17	209	a/ 122	--	--	a/ 87	--	--	--	--	--
Wayne Co. (Detroit).....	17	3,760	a/ 2,558	--	--	a/ 1,202	--	--	--	--	--
70 small courts.....	17	2,660	a/ 1,634	--	--	a/ 1,026	--	--	--	--	--
<b>MISSISSIPPI:</b>											
Hinds Co. (Jackson).....	18	116	109	109	--	7	7	--	--	--	--
73 small courts.....	18	1,194	951	534	417	243	147	96	--	--	--
<b>MISSOURI:</b>											
Greene Co. (Springfield).....	17	404	297	87	210	63	61	2	44	44	--
Jackson Co. (Kansas City).....	17	3,168	1,751	943	808	781	326	455	636	619	17
St. Louis (City).....	17	3,493	1,921	618	1,303	797	305	492	775	743	32
St. Louis Co. (University City).....	17	783	455	152	303	157	66	91	171	164	7
111 small courts.....	17	2,078	965	678	287	498	393	105	615	608	7
<b>MONTANA:</b>											
1 small court.....	f/ 18	1,249	1,249	40	1,209	--	--	--	--	--	--

Table 1.-- CHILDREN'S CASES, 1952: NUMBER OF DELINQUENCY, DEPENDENCY AND NEGLECT, AND SPECIAL PROCEEDINGS CASES DISPOSED OF OFFICIALLY AND UNOFFICIALLY BY 586 COURTS. a/--Continued

Areas served by court <u>b</u> /	Age under which court has original jurisdiction	Total all cases	Delinquency cases			Dependency and neglect cases			Special proceedings cases		
			Total	Official	Un-official	Total	Official	Un-official	Total	Official	Un-official
NORTH DAKOTA:											
First Jud. Dist. (Fargo).....	18	596	380	223	157	118	75	43	98	87	11
1 small court.....	18	143	91	24	67	36	5	31	16	10	6
OHIO:											
Butler Co. (Hamilton).....	18	1,174	972	282	690	139	121	18	63	47	16
Clark Co. (Springfield).....	18	633	567	73	494	55	51	4	11	11	—
Cuyahoga Co. (Cleveland).....	18	5,801	4,914	1,522	3,392	639	601	38	248	241	7
Franklin Co. (Columbus).....	18	1,352	852	269	583	408	298	110	92	70	22
Hamilton Co. (Cincinnati).....	18	4,652	4,040	176	3,864	413	412	1	199	92	107
Lorain Co. (Lorain).....	18	637	636	349	287	—	—	—	1	—	1
Lucas Co. (Toledo).....	18	2,429	1,610	352	1,258	322	260	62	497	389	108
Mahoning Co. (Youngstown).....	18	1,803	1,448	174	1,274	308	180	128	47	36	11
Montgomery Co. (Dayton).....	18	2,310	1,906	302	1,604	294	264	30	110	102	8
Stark Co. (Canton).....	18	570	454	454	—	86	86	—	30	28	2
Summit Co. (Akron).....	18	2,184	1,997	100	1,897	145	142	3	42	37	5
Trumbull Co. (Warren).....	18	657	506	465	41	141	136	5	10	10	—
64 small courts.....	18	9,133	7,345	3,925	3,420	1,317	1,082	235	471	384	87
OKLAHOMA:											
Tulsa Co. (Tulsa).....	18	1,744	1,015	132	883	703	127	576	26	22	4
5 small courts.....	<u>e</u> / 16,18	288	151	94	57	131	110	21	6	5	1
OREGON:											
Lane Co. (Eugene).....	18	1,082	573	84	489	384	62	322	125	19	106
Multnomah Co. (Portland).....	18	3,496	1,907	502	1,405	1,505	588	917	84	84	—
11 small courts.....	18	3,151	2,447	722	1,725	651	287	364	53	31	22
PENNSYLVANIA:											
Allegheny Co. (Pittsburgh).....	18	6,860	4,157	2,766	1,391	2,624	1,092	1,532	79	79	—
Berks Co. (Reading).....	18	843	602	75	527	241	102	139	—	—	—
Montgomery Co. (Norristown).....	18	765	363	86	277	193	14	179	209	132	77
Philadelphia (City and Co.).....	18	<u>e</u> / 9,587	7,365	7,189	176	<u>e</u> / 351	<u>e</u> /	351	<u>e</u> /	<u>e</u> /	—
RHODE ISLAND:											
State (Providence).....	18	1,788	1,188	1,038	150	168	160	8	432	427	5
SOUTH CAROLINA:											
Greenville Co. (Greenville).....	16	980	716	339	377	264	45	219	—	—	—
Spartanburg Co. (Spartanburg)....	16	304	156	71	85	3	—	3	145	91	54
SOUTH DAKOTA:											
2 small courts.....	18	530	457	76	381	72	59	13	1	1	—
TEXAS:											
Travis Co. (Austin).....	<u>e</u> / 17,18	634	430	151	279	103	76	27	101	101	—
UTAH:											
First District (Ogden).....	18	2,609	2,366	1,617	749	243	155	88	—	—	—
Second District (Salt Lake City)	18	3,717	3,522	2,994	528	195	132	63	—	—	—
Third District (Provo).....	18	1,453	1,400	1,103	297	53	45	8	—	—	—
2 small courts.....	18	1,258	1,080	873	207	178	75	103	—	—	—
VERMONT:											
16 small courts.....	16	399	118	118	—	281	281	—	—	—	—
VIRGIN ISLANDS:											
2 small courts.....	16	150	144	74	70	4	4	—	2	1	1
WASHINGTON:											
Pierce Co. (Tacoma).....	18	1,191	<u>d</u> / 788	—	—	<u>d</u> / 209	—	—	<u>d</u> / 194	—	—
Snohomish Co. (Everett).....	18	520	<u>d</u> / 318	—	—	<u>d</u> / 153	—	—	<u>d</u> / 49	—	—
Spokane Co. (Spokane).....	18	2,065	<u>d</u> / 1,816	—	—	<u>d</u> / 123	—	—	<u>d</u> / 126	—	—
Yakima Co. (Yakima).....	18	1,267	<u>d</u> / 1,117	—	—	<u>d</u> / 63	—	—	<u>d</u> / 87	—	—
14 small courts.....	18	4,983	<u>d</u> / 4,146	—	—	<u>d</u> / 514	—	—	<u>d</u> / 323	—	—
WEST VIRGINIA:											
Cabell Co. (Huntington).....	18	432	361	199	162	20	20	—	51	51	—
Kanawha Co. (Charleston).....	18	589	448	281	167	62	62	—	79	79	—
46 small courts.....	18	2,240	1,467	936	531	560	307	253	213	194	19
WISCONSIN:											
Dane Co. (Madison).....	18	792	770	19	751	21	—	21	1	—	1
Milwaukee Co. (Milwaukee).....	18	7,611	6,487	2,358	4,129	672	332	340	452	427	25
Racine Co. (Racine).....	18	61	61	38	23	—	—	—	—	—	—
5 small courts.....	18	469	250	187	63	164	140	24	55	51	4

a/ NOTE WELL: The data in this table should not be used to make comparisons between communities regarding the extent of delinquency. Questions concerning changes in an individual court's data from one year to another should be directed to that individual court.

b/ Courts serving areas with population of 100,000 or more are listed separately, showing the chief city located in each area. Courts serving areas with less than 100,000 population are combined for each State and are presented as "small courts."

c/ Breakdown by type of case not available for 1,871 official dependency and neglect and special proceedings cases (included in total all cases), for one court in Pennsylvania.

d/ Breakdown by method of handling cases not available for 15,668 delinquency cases, 5,354 dependency and neglect cases, and 779 special proceedings cases (included in totals) for Michigan and Washington.

e/ The age under which court has original jurisdiction is different for boys and girls. The age for boys appears first.

f/ Age shown is the one under which court has jurisdiction for delinquent children. Montana courts have jurisdiction for dependent and neglected children under 17 years of age; Texas under 16 years of age.

Table 2.-- CHILDREN'S CASES, 1952: NUMBER OF DELINQUENCY, DEPENDENCY AND NEGLECT, AND SPECIAL PROCEEDINGS CASES DISPOSED OF OFFICIALLY ONLY BY 245 COURTS. a/

Area served by court <u>b/</u>	Age under which court has original jurisdiction	Official cases only			
		Total	Delinquency	Dependency and neglect	Special proceedings
IOWA:					
Black Hawk Co. (Waterloo).....	18	182	80	102	—
Linn Co. (Cedar Rapids).....	18	75	65	10	—
Scott Co. (Davenport).....	18	125	75	50	—
92 small courts.....	18	1,135	766	369	—
NEBRASKA:					
Douglas Co. (Omaha).....	18	266	96	168	2
Lancaster Co. (Lincoln).....	18	288	150	124	14
4 small courts.....	18	17	12	2	3
NEW JERSEY: <u>c/</u>					
Atlantic Co. (Atlantic City).....	18	241	241	<u>d/</u>	<u>d/</u>
Bergen Co. (Hackensack).....	18	630	630	<u>d/</u>	<u>d/</u>
Burlington Co. (Burlington).....	18	33	33	<u>d/</u>	<u>d/</u>
Camden Co. (Camden).....	18	341	341	<u>d/</u>	<u>d/</u>
Essex Co. (Newark).....	18	2,112	2,112	<u>d/</u>	<u>d/</u>
Hudson Co. (Jersey City).....	18	719	719	<u>d/</u>	<u>d/</u>
Mercer Co. (Trenton).....	18	272	272	<u>d/</u>	<u>d/</u>
Middlesex Co. (Perth Amboy).....	18	291	291	<u>d/</u>	<u>d/</u>
Monmouth Co. (Long Beach).....	18	238	238	<u>d/</u>	<u>d/</u>
Morris Co. (Long Island).....	18	129	129	<u>d/</u>	<u>d/</u>
Passaic Co. (Paterson).....	18	187	187	<u>d/</u>	<u>d/</u>
Union Co. (Elizabeth).....	18	497	497	<u>d/</u>	<u>d/</u>
9 small courts.....	18	555	555	<u>d/</u>	<u>d/</u>
NORTH CAROLINA:					
Buncombe Co. (Asheville).....	16	148	58	47	43
Durham Co. (Durham).....	16	77	22	39	16
Foreythe Co. (Winston Salem).....	16	252	105	93	54
Gaston Co. (Gastonia).....	16	79	32	47	—
Mecklenberg Co. (Charlotte).....	16	276	157	30	89
Wake Co. (Raleigh).....	16	358	146	5	207
103 small courts.....	16	2,797	1,910	708	179
NORTH DAKOTA:					
1 small court.....	18	191	122	35	34
PUERTO RICO:					
Mayaguez District (Mayaguez).....	16	120	119	1	—
Ponce District (Ponce).....	16	45	40	3	2
San Juan District (San Juan).....	16	821	750	27	44
5 small courts.....	16	148	144	2	2
SOUTH DAKOTA:					
1 small court.....	18	138	138	<u>d/</u>	<u>d/</u>
WEST VIRGINIA:					
4 small courts.....	18	524	349	74	101

a/ The courts included here are those that reported their official cases only. For the purpose of this report these data are considered incomplete and are not used elsewhere in this report.

b/ Courts serving areas with population of 100,000 or more are listed separately, showing the chief city located in each area. Courts serving areas with less than 100,000 population are combined for each State and are presented as "small courts."

c/ Data for New Jersey are for period September 1, 1951 through August 31, 1952.

d/ No report on dependency, neglect or special proceedings cases.

Table 3. -- CHILDREN'S CASES, 1951: NUMBER OF DELINQUENCY, DEPENDENCY AND NEGLECT, AND SPECIAL PROCEEDINGS CASES DISPOSED OF OFFICIALLY AND UNOFFICIALLY BY 458 COURTS. a/

Areas served by court b/	Age under which court has original jurisdiction	Total all cases	Delinquency cases			Dependency and neglect cases			Special proceedings cases		
			Total	Official	Un-official	Total	Official	Un-official	Total	Official	Un-official
Total cases.....	—	139,861	100,360	43,119	57,241	31,435	17,281	14,154	8,066	5,990	2,076
<b>ALABAMA:</b>											
Jefferson Co. (Birmingham).....	c/ 16,18	2,601	1,238	707	531	1,261	595	666	102	32	70
Mobile Co. (Mobile).....	16	871	616	391	225	255	155	100	—	—	—
Montgomery Co. (Montgomery).....	c/ 16,18	750	597	167	430	150	41	109	3	3	—
<b>ARKANSAS:</b>											
Fulaski Co. (Little Rock).....	21	1,358	619	88	531	732	149	583	7	4	3
14 small courts.....	21	231	205	187	18	20	20	—	6	3	3
<b>CALIFORNIA:</b>											
Alameda Co. (Oakland).....	21	5,936	4,335	1,005	3,330	1,356	378	978	245	10	235
Contra Costa Co. (Richmond).....	21	1,815	1,288	545	743	395	280	115	132	11	121
Fresno Co. (Fresno).....	21	849	610	374	236	162	149	13	77	2	75
Kern Co. (Bakersfield).....	21	2,094	1,638	1,020	618	394	280	114	62	8	54
Riverside Co. (Riverside).....	21	774	640	358	282	134	133	1	—	—	—
Sacramento Co. (Sacramento).....	21	1,514	1,298	278	1,020	212	137	75	4	1	3
San Bernardino Co. (S. Bernardino).....	21	1,172	1,082	434	648	89	81	8	1	—	1
San Diego Co. (San Diego).....	21	3,023	1,923	879	1,044	775	436	339	325	22	303
San Francisco Co. (S. Francisco).....	21	6,679	4,626	878	3,748	1,711	460	1,251	342	1	341
San Joaquin Co. (Stockton).....	21	179	156	144	12	22	20	2	1	—	1
2 small courts.....	21	272	264	82	183	8	8	—	—	—	—
<b>CONNECTICUT:</b>											
First District (Bridgeport).....	16	1,971	1,528	412	1,116	443	443	—	—	—	—
Second District (New Haven).....	16	1,801	1,402	480	922	399	399	—	—	—	—
Third District (Hartford).....	16	1,803	1,348	383	965	455	455	—	—	—	—
<b>INDIANA:</b>											
Allen Co. (Fort Wayne).....	18	537	537	258	279	—	—	—	—	—	—
Lake Co. (Gary).....	18	837	814	175	639	21	7	14	2	2	—
Madison Co. (Anderson).....	18	112	110	44	66	2	2	—	—	—	—
Marion Co. (Indianapolis).....	18	1,949	926	867	59	478	468	10	545	526	19
St. Joseph Co. (South Bend).....	18	1,158	903	216	687	130	108	22	125	125	—
Vanderburgh Co. (Evansville).....	18	380	380	28	352	—	—	—	—	—	—
Vigo Co. (Terre Haute).....	18	154	142	33	109	10	—	10	2	—	2
46 small courts.....	18	2,651	2,470	976	1,494	156	113	43	25	23	2
<b>IOWA:</b>											
Polk Co. (Des Moines).....	18	1,274	1,011	215	796	263	177	86	—	—	—
Woodbury Co. (Sioux City).....	18	607	320	148	172	287	163	124	—	—	—
<b>MAINE:</b>											
1 small court.....	17	318	278	113	165	39	39	—	1	1	—
<b>MISSISSIPPI:</b>											
Hinds Co. (Jackson).....	18	85	74	74	—	11	11	—	—	—	—
70 small courts.....	18	857	624	348	276	233	115	118	—	—	—
<b>MISSOURI:</b>											
Greene Co. (Springfield).....	17	462	331	96	235	83	68	15	48	48	—
Jackson Co. (Kansas City).....	17	3,196	1,746	1,034	712	761	311	450	689	655	34
St. Louis (City).....	17	3,320	1,732	462	1,270	791	289	502	797	742	55
St. Louis Co. (University City).....	17	663	421	195	226	36	38	48	156	155	1
111 small courts.....	17	2,099	945	694	251	511	435	76	643	641	2
<b>MONTANA:</b>											
1 small court.....	d/ 18	909	909	44	865	—	—	—	—	—	—
<b>NORTH DAKOTA:</b>											
First Jud. Dist. (Fargo).....	18	593	396	229	167	110	56	54	87	86	1
2 small courts.....	18	233	146	96	50	46	27	19	41	34	7
<b>OHIO:</b>											
Butler Co. (Hamilton).....	18	1,155	969	297	672	110	94	16	76	35	41
Clark Co. (Springfield).....	18	655	590	78	512	57	52	5	8	7	1
Cuyahoga Co. (Cleveland).....	18	8,328	4,434	1,636	2,798	3,744	1,581	2,163	150	150	—
Franklin Co. (Columbus).....	18	1,309	836	284	552	341	269	72	132	106	26
Hamilton Co. (Cincinnati).....	18	4,047	3,555	124	3,431	335	322	13	157	61	96
Lucas Co. (Toledo).....	18	2,611	1,920	305	1,615	366	320	46	325	226	99
Mahoning Co. (Youngstown).....	18	1,632	1,387	185	1,202	221	167	54	24	22	2
Montgomery Co. (Dayton).....	18	1,889	1,530	253	1,277	247	241	6	112	111	1
Summit Co. (Akron).....	18	1,702	1,542	97	1,445	116	114	2	44	43	1
Trumbull Co. (Warren).....	18	511	394	369	25	109	107	2	8	8	—
60 small courts.....	18	7,751	5,907	2,785	3,122	1,320	1,085	235	524	425	99
<b>OKLAHOMA:</b>											
Tulsa Co. (Tulsa).....	18	2,047	1,253	101	1,152	780	122	658	14	5	9
6 small courts.....	c/ 16,18	435	103	75	28	302	182	120	30	27	3
<b>OREGON:</b>											
Lane Co. (Eugene).....	18	1,056	610	120	490	317	83	234	129	36	93
Multnomah Co. (Portland).....	18	3,245	1,823	478	1,345	1,366	592	774	56	56	—
8 small courts.....	18	3,043	2,183	631	1,552	769	226	543	91	37	54
<b>PENNSYLVANIA:</b>											
Allegheny Co. (Pittsburg).....	18	6,842	4,076	2,295	1,781	2,695	1,097	1,598	71	71	—
Berks Co. (Reading).....	18	811	636	93	543	175	70	105	—	—	—
Montgomery Co. (Norristown).....	18	642	313	91	222	179	22	157	150	73	77
Philadelphia (City and Co.).....	18	8,997	6,733	6,497	236	2,190	1,688	502	74	40	34

Table 3. -- CHILDREN'S CASES, 1951: NUMBER OF DELINQUENCY, DEPENDENCY AND NEGLECT, AND SPECIAL PROCEEDINGS CASES DISPOSED OF OFFICIALLY AND UNOFFICIALLY BY 458 COURTS. a/--Continued

Areas served by court <u>b/</u>	Age under which court has original jurisdiction	Total all cases	Delinquency cases			Dependency and neglect cases			Special proceedings cases		
			Total	Official	Un-official	Total	Official	Un-official	Total	Official	Un-official
PUERTO RICO:											
Aguadilla District (Aguadilla)...	16	54	44	8	36	10	2	8	—	—	—
Mayaguez District (Mayaguez)...	16	81	80	43	37	1	—	1	—	—	—
Ponce District (Ponce).....	16	123	112	16	96	8	8	—	3	—	3
San Juan District (San Juan)...	16	790	738	93	645	35	19	16	17	1	16
2 small courts.....	16	66	38	21	17	27	6	21	1	1	—
RHODE ISLAND:											
State (Providence).....	18	1,573	1,029	906	123	152	152	—	392	392	—
SOUTH CAROLINA:											
Greenville Co. (Greenville)....	16	862	511	297	214	335	73	262	16	16	—
Spartanburg Co. (Spartanburg)...	16	324	167	102	65	11	11	—	146	77	69
SOUTH DAKOTA:											
2 small courts.....	18	589	500	103	397	87	46	41	2	2	—
UTAH:											
First District (Ogden).....	18	2,128	2,025	1,379	646	103	80	23	—	—	—
Second District (Salt Lake Cty)	18	3,152	2,977	2,612	365	175	128	47	—	—	—
Third District (Provo).....	18	1,313	1,230	959	271	83	67	16	—	—	—
2 small courts.....	18	999	917	633	284	82	42	40	—	—	—
VERMONT:											
16 small courts.....	16	364	110	110	—	254	254	—	—	—	—
WEST VIRGINIA:											
Cabell Co. (Huntington).....	18	362	301	156	145	21	21	—	40	40	—
Kanawha Co. (Charleston).....	18	827	689	229	460	57	57	—	81	81	—
53 small courts.....	18	2,888	1,942	1,533	409	626	471	155	320	308	12
WISCONSIN:											
Milwaukee Co. (Milwaukee).....	18	6,571	5,528	1,969	3,559	638	364	274	405	398	7

a/ NOTE WELL: The data in this table should not be used to make comparisons between communities regarding the extent of delinquency. Questions concerning changes in an individual court's data from one year to another should be directed to that individual court.

b/ Courts serving areas with population of 100,000 or more are listed separately, showing the chief city located in each area. Courts serving areas with less than 100,000 population are combined for each State and are presented as "small courts."

c/ The age under which court has original jurisdiction is different for boys and for girls. The age for boys appears first.

d/ Age shown is the one under which court has jurisdiction for delinquent children. Montana courts have jurisdiction for dependent and neglected children under 17 years of age.

Table 4.-- CHILDREN'S CASES, 1950: NUMBER OF DELINQUENCY, DEPENDENCY AND NEGLECT, AND SPECIAL PROCEEDINGS CASES DISPOSED OF OFFICIALLY AND UNOFFICIALLY BY 410 COURTS. a/

Area served by court b/	Age under which court has original jurisdiction	Total all cases	Delinquency cases			Dependency and neglect cases			Special proceedings cases		
			Total	Official	Un-official	Total	Official	Un-official	Total	Official	Un-official
Total cases.....	—	104,853	73,411	30,224	43,187	24,910	13,522	11,388	6,532	5,482	1,050
<b>ALABAMA:</b>											
Jefferson Co. (Birmingham).....	c/ 16,18	2,347	1,077	585	492	1,217	691	526	53	36	17
Mobile Co. (Mobile).....	16	512	336	248	88	176	135	41	—	—	—
Montgomery Co. (Montgomery).....	c/ 16,18	428	352	131	221	72	37	35	4	4	—
<b>ARKANSAS:</b>											
Fulaski Co. (Little Rock).....	21	1,640	819	141	678	733	90	643	88	16	72
<b>CONNECTICUT:</b>											
First District (Bridgeport).....	16	1,703	1,388	383	1,005	315	315	—	—	—	—
Second District (New Haven).....	16	1,966	1,526	448	1,078	440	440	—	—	—	—
Third District (Hartford).....	16	1,478	1,123	277	846	355	355	—	—	—	—
<b>INDIANA:</b>											
Allen Co. (Fort Wayne).....	18	373	373	180	193	—	—	—	—	—	—
Lake Co. (Gary).....	18	1,003	959	172	787	29	12	17	15	4	11
Madison Co. (Anderson).....	18	108	108	43	65	—	—	—	—	—	—
Marion Co. (Indianapolis).....	18	1,514	833	467	426	394	381	13	227	203	24
St. Joseph Co. (South Bend).....	18	904	624	124	500	128	128	—	152	152	—
Vanderburgh Co. (Evansville).....	18	348	348	60	288	—	—	—	—	—	—
Vigo Co. (Terre Haute).....	18	133	133	60	73	—	—	—	—	—	—
47 small courts.....	18	2,879	2,408	909	1,499	386	174	212	85	44	41
<b>IOWA:</b>											
Polk Co. (Des Moines).....	18	1,082	742	141	601	340	191	149	—	—	—
Woodbury Co. (Sioux City).....	18	951	503	184	319	268	144	124	180	105	75
<b>MISSISSIPPI:</b>											
Hinds Co. (Jackson).....	18	92	89	89	—	3	3	—	—	—	—
61 small courts.....	18	693	519	241	278	174	49	125	—	—	—
<b>MISSOURI:</b>											
Greene Co. (Springfield).....	17	401	277	95	182	83	80	3	41	41	—
Jackson Co. (Kansas City).....	17	3,236	1,816	1,006	810	706	307	399	714	683	31
St. Louis (City).....	17	3,176	1,529	462	1,067	876	342	534	771	756	15
St. Louis Co. (University City).....	17	676	386	164	222	149	71	78	141	137	4
111 small courts.....	17	2,094	1,032	753	279	456	386	70	606	595	11
<b>MONTANA:</b>											
1 small court.....	d/ 18	1,005	1,005	36	969	—	—	—	—	—	—
<b>NORTH DAKOTA:</b>											
First Jud. Dist. (Fargo).....	18	586	394	261	133	184	168	16	8	8	—
1 small court.....	18	87	42	10	31	29	5	24	17	6	11
<b>OHIO:</b>											
Butler Co. (Hamilton).....	18	1,085	889	279	610	45	25	20	151	31	120
Clerk Co. (Springfield).....	18	458	404	55	349	47	44	3	7	7	—
Cuyahoga Co. (Cleveland).....	18	6,980	3,392	1,261	2,131	3,405	1,621	1,784	183	182	1
Franklin Co. (Columbus).....	18	1,061	583	235	348	359	264	95	119	77	42
Hamilton Co. (Cincinnati).....	18	4,080	3,697	152	3,545	223	223	—	160	56	104
Lucas Co. (Toledo).....	18	2,473	1,762	220	1,542	407	346	61	304	206	98
Mahoning Co. (Youngstown).....	18	1,335	1,133	160	973	171	126	45	31	23	8
Montgomery Co. (Dayton).....	18	1,733	1,401	262	1,139	212	203	9	120	119	1
Summit Co. (Akron).....	18	1,409	1,209	102	1,107	155	144	11	45	45	—
Trumbull Co. (Warren).....	18	427	295	263	32	127	119	8	5	5	—
52 small courts.....	18	5,983	4,340	1,684	2,656	1,126	982	144	517	414	103
<b>OKLAHOMA:</b>											
Tulsa Co. (Tulsa).....	18	2,431	1,379	110	1,269	1,047	206	841	5	—	5
6 small courts.....	c/ 16,18	362	102	72	30	214	197	17	46	46	—
<b>OREGON:</b>											
Lane Co. (Eugene).....	18	1,034	545	129	416	411	116	295	78	26	52
Multnomah Co. (Portland).....	18	3,024	1,815	527	1,288	1,171	455	716	38	38	—
8 small courts.....	18	2,487	1,804	424	1,380	627	160	467	56	29	27
<b>PENNSYLVANIA:</b>											
Allegheny Co. (Pittsburgh).....	18	8,170	4,968	1,960	3,008	3,141	859	2,282	61	61	—
Berks Co. (Reading).....	18	703	494	68	426	207	77	130	2	2	—
Montgomery Co. (Norristown).....	18	542	318	64	254	224	11	213	—	—	—
Philadelphia (City and Co.).....	18	8,719	6,493	6,193	300	1,837	1,386	451	389	285	104
<b>PUERTO RICO:</b>											
Aguadilla District (Aguadilla).....	16	27	27	18	9	—	—	—	—	—	—
Mayaguez District (Mayaguez).....	16	62	62	9	53	—	—	—	—	—	—
1 small court.....	16	24	23	6	17	1	—	1	—	—	—
<b>RHODE ISLAND:</b>											
State (Providence).....	18	1,533	987	859	128	187	178	9	359	359	—
<b>SOUTH CAROLINA:</b>											
Greenville Co. (Greenville).....	16	747	479	229	250	262	66	196	6	6	—
Spartanburg Co. (Spartanburg).....	16	329	155	103	52	25	11	14	149	85	64
<b>SOUTH DAKOTA:</b>											
2 small courts.....	18	535	453	68	385	73	44	29	9	9	—
<b>UTAH:</b>											
First District (Ogden).....	18	1,658	1,578	1,061	517	80	70	10	—	—	—
Second District (Salt Lake City).....	18	2,363	2,185	1,703	482	178	134	44	—	—	—
Third District (Provo).....	18	1,320	1,224	805	419	96	48	48	—	—	—
2 small courts.....	18	1,085	970	822	148	115	93	22	—	—	—

Table 4.-- CHILDREN'S CASES, 1950: NUMBER OF DELINQUENCY, DEPENDENCY AND NEGLECT, AND SPECIAL PROCEEDINGS CASES DISPOSED OF OFFICIALLY AND UNOFFICIALLY BY 410 COURTS. a--Continued

Areas served by court <u>b</u> /	Age under which court has original jurisdiction	Total all cases	Delinquency cases			Dependency and neglect cases			Special proceedings cases		
			Total	Official	Un-official	Total	Official	Un-official	Total	Official	Un-official
VERMONT:											
16 small courts.....	16	356	125	125	—	231	231	—	—	—	—
WEST VIRGINIA:											
Cabell Co. (Huntington).....	18	322	260	151	109	15	15	—	47	47	—
53 small courts.....	18	2,338	1,713	1,212	501	447	303	144	178	177	1
WISCONSIN:											
Milwaukee Co. (Milwaukee).....	18	6,243	5,347	1,163	4,184	531	261	270	365	357	8

a/ NOTE WELL: The data in this table should not be used to make comparisons between communities regarding the extent of delinquency. Questions concerning changes in an individual court's data from one year to another should be directed to that individual court.

b/ Courts serving areas with population of 100,000 or more are listed separately, showing the chief city located in each area. Courts serving areas with less than 100,000 population are combined for each State and are presented as "small courts."

c/ The age under which court has original jurisdiction is different for boys and for girls. The age for boys appears first.

d/ Age shown is the one under which court has jurisdiction for delinquent children. Montana courts have jurisdiction for dependent and neglected children under 17 years of age.

Table 5.-- JUVENILE DELINQUENCY CASES, 1940-1952: NUMBER OF CASES DISPOSED OF BY 206 COURTS AND NUMBER OF CHILDREN AGED 10-17 IN THE UNITED STATES.

Year	Juvenile delinquency cases <u>a</u> /		Child population of U. S. (10-17 years of age) <u>b</u> /	
	Number	Percentage (1940 = 100)	Number	Percentage (1940 = 100)
1940.....	39,440	100	19,115,000	100
1941.....	44,173	112	18,893,000	99
1942.....	49,300	125	18,674,000	98
1943.....	67,837	172	18,481,000	97
1944.....	65,076	165	18,287,000	96
1945.....	67,837	172	18,089,000	95
1946.....	58,371	148	17,902,000	94
1947.....	51,642	131	17,776,000	93
1948.....	50,546	128	17,683,000	93
1949.....	53,061	135	17,586,000	92
1950.....	55,504	141	17,431,000	91
1951.....	58,961	149	17,746,000	93
1952.....	64,927	165	18,239,000	95
1955.....	--	—	20,190,000	106
1960.....	—	--	25,602,000	134

a/ Data for 1946-1952 based on cases disposed of by 206 courts serving about 12 percent of the child population of the United States; data for 1940-45 for these courts estimated by the Children's Bureau.

b/ Bureau of the Census, U. S. Department of Commerce. Data for 1940-1949 are provisional revised estimates (unpublished).

Table 6.-- JUVENILE DELINQUENCY CASES, 1951: AGES OF BOYS AND GIRLS WHEN REFERRED TO COURT, IN CASES DISPOSED OF BY 458 COURTS.

Age of child when referred to court	Juvenile delinquency cases									
	Number					Percent				
	Total	Official		Unofficial		Total	Official		Unofficial	
		Boys	Girls	Boys	Girls		Boys	Girls	Boys	Girls
Total cases.....	100,360	35,301	7,818	46,846	10,355	--	--	--	--	--
Age reported.....	83,430	27,528	6,034	41,205	8,663	100	100	100	100	100
Under 10 years.....	2,474	538	74	1,633	229	3	2	1	4	3
10 years, under 12.....	4,221	1,243	135	2,557	286	5	5	2	6	3
12 years, under 14.....	10,260	3,086	736	5,212	1,226	12	11	12	13	14
14 years, under 16.....	24,385	8,037	2,559	10,518	1,271	29	29	43	25	38
16 years, under 18.....	36,977	13,065	2,220	18,554	3,138	44	47	37	45	36
18 years and over.....	5,113	1,559	310	2,744	513	6	5	5	7	6
Age not reported.....	16,930	7,773	1,784	7,621	1,692	--	--	--	--	--

Table 7.-- JUVENILE DELINQUENCY CASES, 1951: PLACES OF DETENTION CARE OF BOYS AND GIRLS, IN CASES DISPOSED OF BY 458 COURTS.

Place of detention care	Juvenile delinquency cases									
	Number					Percent				
	Total	Official		Unofficial		Total	Official		Unofficial	
		Boys	Girls	Boys	Girls		Boys	Girls	Boys	Girls
Total cases.....	100,360	35,301	7,818	46,846	10,355	--	--	--	--	--
Detention care reported.....	66,220	23,016	4,818	32,474	6,912	100	100	100	100	100
No detention care overnight.....	44,666	14,323	2,224	23,345	4,574	67	63	46	74	66
Detention care overnight or longer n/.....	21,554	8,493	2,594	8,129	2,338	33	37	54	26	34
Jail or police station..	5,444	3,134	482	1,563	265	8	14	10	5	4
Detention home.....	15,121	4,847	1,861	6,444	1,069	23	21	39	21	29
Boarding home.....	290	181	71	1	1	1	1	1	b/	b/
Other place.....	699	331	180	175	1	1	1	4	b/	1
Detention care not reported..	34,140	12,285	3,000	15,412	3,443	--	--	--	--	--

a/ Where a child was detained overnight in more than one place, only one place is reported. The selection is made in accordance with the order in which the places are listed.

b/ Less than 0.5 percent.

Table 8.-- JUVENILE DELINQUENCY CASES, 1951: DISPOSITION OF BOYS' AND GIRLS' CASES, DISPOSED OF BY 458 COURTS.

Disposition of case	Juvenile delinquency cases									
	Number					Percent				
	Total	Official		Unofficial		Total	Official		Unofficial	
		Boys	Girls	Boys	Girls		Boys	Girls	Boys	Girls
Total cases.....	100,360	35,301	7,818	46,886	10,355	—	—	—	—	—
Disposition reported.....	70,905	23,991	5,027	34,426	7,461	100	100	100	100	100
Case dismissed with or without warning or adjustment.....	29,205	3,849	664	20,835	3,857	41	16	13	61	52
Case held open without further action.....	5,502	1,347	269	3,445	441	8	6	5	10	6
Child supervised by probation officer.....	18,562	9,399	1,827	5,878	1,458	26	39	36	17	20
Child committed or referred to:										
Public institution for delinquent children.....	3,776	2,610	876	235	55	5	11	18	1	1
Other public institution.....	832	509	149	143	31	1	2	3	a/	a/
Other court.....	1,241	405	65	596	175	2	1	1	2	2
Public department.....	1,392	465	234	434	259	2	2	5	1	3
Private agency or institution.....	1,415	406	495	274	240	2	2	10	1	3
Other disposition of case.	8,980	5,001	448	2,586	945	13	21	9	7	13
Disposition not reported.....	29,455	11,310	2,791	12,460	2,894	—	—	—	—	—

a/ Less than 0.5 percent.

Table 9.-- DEPENDENCY AND NEGLECT AND SPECIAL PROCEEDINGS CASES, 1946-1952: NUMBER OF CASES DISPOSED OF BY 205 COURTS AND THE NUMBER OF CHILDREN UNDER 18 YEARS OF AGE IN THE UNITED STATES.

Year	Dependency and neglect cases		Special proceedings cases		Child population of U.S. under 18 years of age a/	
	Number	Percentage (1946 = 100)	Number	Percentage (1946 = 100)	Number	Percentage (1946 = 100)
1946....	16,277	100	3,344	100	43,216,000	100
1947....	17,080	105	5,410	162	44,467,000	103
1948....	16,842	103	4,863	145	45,272,000	105
1949....	15,686	96	3,782	113	46,136,000	107
1950....	15,085	93	4,366	131	47,042,000	109
1951....	15,580	96	4,346	130	48,638,000	113
1952....	16,213	100	4,289	128	50,312,000	116

a/ Bureau of the Census, U. S. Department of Commerce. Data for 1946-1949 are provisional revised estimates (unpublished).

Table 10.-- DEPENDENCY AND NEGLECT CASES, 1951: AGES OF CHILDREN WHEN REFERRED TO COURT, IN CASES DISPOSED OF BY 458 COURTS.

Age of child when referred to court	Dependency and neglect cases					
	Number			Percent		
	Total	Official	Unofficial	Total	Official	Unofficial
Total cases.....	31,435	17,281	14,154	—	—	—
Age reported.....	24,257	13,251	11,006	100	100	100
Under 2 years.....	4,237	2,582	1,655	17	20	15
2 years, less than 6.....	7,096	3,611	3,485	29	27	32
6 years, less than 10.....	5,564	2,972	2,592	23	22	23
10 years, less than 14.....	4,327	2,432	1,895	18	18	17
14 years, less than 18.....	2,849	1,556	1,293	12	12	12
18 years, and over.....	184	98	86	1	1	1
Age not reported.....	7,178	4,030	3,148	—	—	—

Table 11.-- DEPENDENCY AND NEGLECT CASES, 1951: PLACES OF SHELTER CARE OF CHILDREN, IN CASES DISPOSED OF BY 458 COURTS.

Place of shelter care	Dependency and neglect cases					
	Number			Percent		
	Total	Official	Unofficial	Total	Official	Unofficial
Total cases.....	31,435	17,281	14,154	—	—	—
Shelter care reported.....	18,868	10,674	8,194	100	100	100
No shelter care overnight.....	14,269	7,130	7,139	76	67	87
Shelter care overnight or longer a/.....	4,599	3,544	1,055	24	33	13
Jail or police station.....	48	29	19	b/	b/	b/
Detention home.....	1,771	1,350	421	10	13	5
Boarding home.....	1,012	805	207	5	7	3
Other place.....	1,768	1,360	408	9	13	5
Shelter care not reported.....	12,567	6,607	5,960	—	—	—

a/ Where a child was cared for overnight in more than one place, only one place is reported. The selection is made in accordance with the order in which the places are listed.

b/ Less than 0.5 percent.

Table 12.-- DEPENDENCY AND NEGLECT CASES, 1951: DISPOSITION OF CHILDREN'S CASES DISPOSED OF BY 458 COURTS.

Disposition of case	Dependency and neglect cases					
	Number			Percent		
	Total	Official	Unofficial	Total	Official	Unofficial
Total cases.....	31,435	17,281	14,154	—	—	—
Disposition reported.....	19,299	11,030	8,269	100	100	100
Case dismissed with or without warning or adjustment.....	6,383	2,059	4,324	33	19	52
Case held open without further action.....	1,722	525	1,197	9	5	15
Child supervised by probation officer.	2,193	1,254	939	12	11	11
Child committed or referred to:						
Public institution for delinquent children.....	22	21	1	<sup>a/</sup> 3	<sup>a/</sup> 5	<sup>a/</sup> 1
Other public institution.....	571	517	54	3	5	1
Other court.....	224	113	111	1	1	1
Public department.....	4,102	3,772	330	21	34	4
Private agency or institution.....	1,540	1,285	255	8	12	3
Other disposition of case.....	2,542	1,484	1,058	13	13	13
Disposition not reported.....	12,136	6,251	5,885	—	—	—

<sup>a/</sup> Less than 0.5 percent.







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